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PART FIRST.

ORIGINAL COMMUNICATIONS.

Epidemic Diphtheritis, and its Treatment. Read before the Hebron Medical Society. By THADDEUS ASBURY REAMY, M.D., Hopewell, Ohio.

In attempting a brief discussion of the subject announced, and presenting a meagre history of the disease as it has prevailed in this vicinity during the last year, and still prevails to a limited extent, I feel no small degree of diffidence, growing out of the fact that I am compelled from careful observations made during the treatment of more than one hundred cases, to differ slightly as to the nature, and very *materially* as to the proper constiutional treatment of diphtheritis from the very eminent opinions of Prof. Wood, Meigs and other standard authors.

I presume there are but few attentive students of progressive medicine, but have been delighted and had their stock of professional knowledge very much improved by having the benefits of the experience and opinions of their medical brethren on both sides the Atlantic through the efficient facilities of the many ably conducted journals to which all may have access.

It must also have been noticed, however, that during the last few years an *unhealthy* ambition to be the author of something new has very considerably modified the productions even of good men.

Having my attention at present particularly directed to this existing evil, I shall, as far as possible, avoid it in this paper. Of course I

cannot expect complete immunity from that which perhaps, despite their vigilance, influences older and wiser heads.

In the month of February last, (1858,) I was called upon to visit, in consultation with Dr. McCray, of Gratiot, Ohio, a little girl of four years, daughter of Mr. S——, residing in the above named village. Dr. McC—— informed me that he had been treating the case 8 or 10 days. Had from the first been soreness of the throat, attended with slight febrile symptoms. During the last 24 hours there had been hoarseness, with great difficulty of breathing. Several deaths had occurred in the village in the past three months, and that he regarded the disease as a *marked* form of Scarlatina. Had in the case before us, used mercurial cathartics astringent gargles, and anodyne liniment externally.

Condition of patient at the time: pulse 140, feeble; surface of trunk ordinary; extremities cool; breathing very difficult, croupy cough; complete aphonia; examination of fauces revealed a deposition of pellicular membrane completely covering tonsils, uvula palatine arches, and extending as far down into pharynx and larynx as I could possibly see by depressing the tongue with the handle of a heavy spoon. Parotid and sub-maxillary glands much enlarged. I unhesitatingly pronounced it a case of diphtheritis, and gave an unfavorable prognosis. Prescription.—Nit. Argt. in sol., 40 grs. to oz., to be applied freely as far down the larynx as possible, by means of probang and sponge. After which an emetic of Ipecac and Ant. Tart. After free emesis was produced, another application of sol. Nit. Argt.—this latter to be repeated 3 times daily. Internally Hyd. Sub. Mur. grijrg every 2 hours. Liniment composed of olive oil, camph. gum and aqua ammonia externally; simpisms to extremities.

Second day.—No better; treatment continued. Third day—worse, almost suffocated; patechia about shoulders and neck; dark yellow echymosed spots on lower extremities.

Ordered another emetic; patient threw up a false membrane over an inch in length, being a perfect tube moulded by the trachea, having considerable firmness, (remains perfect at this writing, and was exhibited to the society.) After this, breathing somewhat easier; ordered stimulants. Fourth day died.

Saw, within next 5 weeks, two other cases in consultation with Dr. McC——, and 3 cases of my own. Similar treatment was instituted, and similar results followed. They all died in from 5 to 10 days after attack. In two of these cases treatment was commenced

when the false membrane was limited to the tonsils and about half the space between the palatine arches. In them the emetic was omitted.

An obvious and rapid tendency of the membrane to pass into the larynx led me dilligently to employ the mercurial, under the impression that more than all other remedies combined, this had the power of detaching and preventing deposition of the membrane. In this belief I was sanguine, partly from the statements of Wood, Meigs and others. But unfortunately results did not serve to strengthen my faith—nearly every patient died of asphyxia, produced evidently from extension of the false membrane into the trachea and bronchial tubes.

Within 10 days after death of last named cases, I was called to see a little boy of 3 years, son of Mrs. F., of Gratiot, and brother to last patient lost. Pulse 140, feeble; tongue slightly fured; papilla elevated; fauces and tonsils covered with a whitish yellow looking membrane. Removed a portion of the false membrane with some difficulty, by means of a groove director, mucous membrane beneath entire, but very red and glossy. There were also several dark greenish echymosed spots on the lower extremities below the knee. Urine turned litimus paper, after being reduced by acid, deep blue. Applied in axilla afforded same result—in stools which were fluid the same condition, an alkaline condition of all the secretions.

Prescription.—Argt. Nit. in solid stick, fastened in the end of a goose quill by means of a thread (which is much safer than the port caustic,) applied effectually as far down as the membrane could be reached; followed by an emetic of Ipecac and Art. Tart; Alum dr. 8 oz., water to be used 4 to 6 times daily by cotton swab. nternally Quinine Sulph., gr. iij; Acid Nitric Dilute, 9gtt. 12; Aqua Fout, 3ss. every 4 hours. After 6 or 7 doses had been given the acid to be administered but 3 times daily, and quinine to be repeated every 3 hours.

Second day.—Pulse 135; not quite so feeble; no other improvement; treatment continued. Third day—no change; treatment continued. Fourth day—membrane disappeared, except two or three small patches at upper part of pharanx, and some little on each tonsil; no other improvement; treatment continued. Fifth day—much better; alum-water continued, but Argt. Nit. discontinued.

Sixth day—dismissed. The Argt. Nit. was in this case applied by myself each morning.

Within 4 weeks from this time I treated some 24 cases in same neighborhood, in same way. Chlorate potash was used as a wash, or gargle, (owing to age,) when the secretions from fauces or nose were very offensive. Every case recovered. Treatment was commenced in every case before the membrane had entered the trachea. Although in several cases it was very rapidly tending in that direction.

In the month of June last the disease appeared again in the family of Mr. B——, who resided one mile west of my village (Mt. Sterling,) and 2½ miles east of Gratiot. First was a daughter of 15 summers, an exceedingly intelligent and interesting young lady; and so insidious was its march, that when I was first called the pellicular membrane had reached the trachea and bronchia. The tonsils were gangrenous; offensive sanies from nose, patechia about neck, and on extremities. Pulse 144, very feeble. Prescribed Nit. Silver as before. Most powerful stimulants failed to rally the failing energies of life. Epistaxis occurred on the 3d day, and when the nostrils were plugged she bled at the gums and lips. She died of exhaustion.

Notwithstanding I cautioned the parents to carefully watch the remaining five children, and report to me the earliest indications of the approach of the disease, yet they allowed a little boy of five years to get in the very last stages of the disease before they detected it. When I first saw him he had all the symptoms of membranous croup. After treatment was commenced, he improved apparently, but in a few days died when we were not expecting it. I tried the mercurial treatment in his case. The four other children all suffered from the disease, and in this family the adynamic condition and malignant tendency of the disease was greater than in any others I have seen, owing, perhaps, to what I think is plainly evident among all these children—the scrofulous diathesis. One of them, a little boy, was under treatment four weeks. Treatment same as before given—Argt. Nit., alum water, quinine and Nit. acid. All recovered.

The disease spread rapidly. In five weeks nearly one hundred children in a territory of two miles square were victims. Many of them were very bad. All, however, were put under treatment before the membrane had encroached upon the trachea, as I had by

this time succeeded in arousing the parents to the importance of watching the throats of their children daily. My partner, Dr. C. H. Evans, and myself, treated all the cases that occurred in the above named locality. The above specified treatment was instituted in every case, sulphate of magnesia being used invariably as a cathartic, and occasionally, where there was evident hepatic derangement, and the disease had not advanced too far, we prescribed a mercurial. Every case, except those I have specified, recovered.

From this epidemic I was enabled to make the following statistics: Whole number of cases treated, 120; deaths, (excluding consultation cases), 5; average age, 5 years; boys, 72; girls, 48; average duration of disease after treatment was commenced, 8 days.

Tests were instituted in many of the above cases, and, with but two exceptions, the secretions were all decidedly alkaline. There is in this disease evidently great depravity of the blood, and I am well satisfied that the disease, or the poison that feeds it, rapidly increases that depravity; for in those cases where there seemed to be some force and fullness of the pulse, some strength of system early in the disease, but a few days were sufficient to bring on adynamic symptoms, unless controlled by treatment.

I regard tonics and acids internally, and nitrate of silver locally, as the only remedies from which we may expect real benefit. These, if timely employed, will most always prove successful. Sulphate of quinine exerts almost a specific influence over the disease, and should be resorted to at once, irrespective of existing fever. There is depression of the nervous system from the very commencement, and no doubt the apparent force of pulse and tone of system often present at the beginning, is due to an attempt on the part of the organism to resist or throw off the poison. And thus tonics, instead of increasing fever, as under other circumstances, will reduce it, whereas depletion, or remedies intended to reduce inflammatory action by acting on the fibrin of the blood, increase the very symptoms they are intended to allay, and assist the disease in destroying the patient. I am thoroughly convinced that calomel in *any* form, at any stage of the disease, is very prejudicial. In the few cases where I have administered this drug to arouse the liver to action, it seemed to aggravate the local disease; and in the first cases named in this paper, I am satisfied its use hurried the fatal issue, although I have no doubt they would have died without its use. As intimated at the outset, I am fully aware that this view is in pos-

itive violation of the doctrines of eminent authority, yet I am led to the conclusions named. I have knowledge of several other physicians who have prescribed calomel largely in this disease, and they have been uniformly unsuccessful.

I do not believe that the blood is overcharged with an excess of fibrin or coagulable lymph, and needs unloading by the action of mercury. But I believe the blood is disorganized, and, in many instances, excessively alkaline, and that the *pellicular membrane*, in the fauces as well as in other parts of the body, perhaps, is the result of that disorganization; hence the use of acids and tonics.

The disease is evidently contagious. I need say but little as to diagnosis. Every physician is perfectly acquainted with this subject. The most reliable symptoms are, the insidious approach, very little soreness until the membrane begins to form, and the possibility of removing the *membrane* without injuring the mucous membrane.

In many of the diseases we are called upon to treat, we very prudently pursue a tentative course, but in this we must join the enemy in active and vigorous conflict, take advantage of every possible opportunity at the very outset, and push the battle until we have driven him from the citadel of life. Happily we have the means competent to the task, providing we commence in time. I do not believe that one case out of forty need be lost, if we are permitted to commence treatment before the membrane has gone beyond our reach. On the other hand, I think scarcely any case will be cured by any treatment whatever, after the false membrane has been deposited in the trachea.

The locality where this epidemic prevailed, is dry and healthily situated—mainly limestone water. There are still a few sporadic cases, but not so hard to control as when in an epidemic form.

Excerpta. By JNO. DAWSON, M.D., one of the Editors.

A browning or bronzing of the skin, a diagnostic mark of disease of the supra-renal capsules.

Some time ago Dr. Thos. Addison, of London, in an illustrated quarto of forty-three pages, gave eleven cases of disease of the supra-renal capsules attended, or rather marked, with *bronzed-skin*. Hutchinson has collected others from various authorities which purport to illustrate the same thing. As far as anything is yet known,

the diagnostic mark is present whatever be the form of disease of the capsules.

The supra-renal capsules are, as is known, small yellowish bodies, situated upon the top of the kidneys. They differ in shape on the two sides. The *right* one is three-cornered; the left semi-lunar. The right is connected to the under surface of the liver, the left touches the pancreas. They are nearly opposite the tenth dorsal vertebra and very close to the semi-lunar ganglion. At the second month of embryonic existence the capsules are larger and heavier than the kidneys —hence they are supposed to contribute in some way or other to the support of fœtal life. The supra-renal capsules are very copiously supplied with blood, some twenty or more small arteries entering them. Once in a while accessory capsules are observed varying in size from that of a millet seed to that of a pea.

The supra-renal capsules are the seat of hæmorrhage, tubercular and cancerous degeneration, encysted disease, and ossification.

Accompanying the coloration of the skin we have debility and more or less emaciation. The prognosis of bronzed skin is unfavorable, most of the cases dying rapidly.

The discoloration commences upon the parts most exposed to the sun. The neck, backs of the hands, and front portions of the extremities. The diseases, with which the affection under consideration is most liable to be confounded, are jaundice, the brownish earthy hue of malarial cachexy, the alterations of the surface following sometimes the internal use of nitrate of silver and chloasma. From the jaundiced hue, the bronzed skin may be distinguished by the circumstance that the latter never extends to the conjunctiva; from chloasma (*macula gravidarum*) by the circumstance that this state of the skin is usually connected with uterine irritation or pregnancy.

Much observation, it may be remarked, is still necessary to show that disease of the supra-renal capsules is always attended with bronzed skin. At present, however, when such a sign is present, the tendency is to suspect that such is the case.

Prognosis—Treatment.—According to all observation but little hope can be entertained of a recovery when the skin is decidedly bronzed. Nothing at all is known in regard to treatment.

Since our attention has been called to this subject, memory calls up a few cases of what was termed by the people "*black jaundice,*" which have come under our observation at various times. Such cases were regarded as incurable, and what we saw confirmed the

popular notion. One case, that we have a very distinct recollection of, seemed several times, while under the use of mercurials and tonics to be improving, not in regard to the discoloration of the skin, but in strength and flesh. On a certain occasion, however, while working in the harvest field, the patient suddenly expired. No post mortum was made.

Modus operandi of Medicines.

This has been a prolific theme in all ages of the world. To ascertain the exact nature of the *action* of medicines, has always been a desideratum. All attempts, however, in this line, have amounted to nothing. The inquiry commenced too early; it began before the materials necessary to its solution were accumulated. Men gifted with a little ingenuity, in former times, seized upon a fact, or a few facts, and with these attempted a full explanation. What has become of the *Solidists?* the *Humoralists?* They had their day; they doubtless enjoyed their speculations; but where are they? Who has a record of their contributions? They died without issue. They were impatient. They essayed to cut the Gordian knot too soon. The extent of the inquiry was not comprehended. The theorists had but little respect for the composition of the organism, and the forces which obtain in a living human body—and yet without a consideration of these, who can expect to approach the truth? Again, before the action of a medicine can be understood we must know what we have to cure.

Stœchiology comprises a description of the composition of the human body—the simple chemical elements, and the immediate principles, or organic elements which make up the tissues and fluids.

Chemists have now made out sixty-five simple bodies, and fifteen of these are found to be normal constituents of the human body—oxygen, hydrogen, nitrogen, sulphur, carbon, phosphorus, calcium, magnesium, sodium, potassium, chlorine, fluorine, silicium, iron, magnesium.

These substances are found in very variable proportions in the tissues—oxygen, hydrogen, nitrogen and carbon, are found in all the tissues, and most of the fluids except fat. The first three are found in all the tissues. It is not necessary for our purpose to allude to the tissues where the rest of these chemical principles are found.

We will now look a little into the *immediate* principles, or the *organic* of some writers, of which the body is composed. Although

called principles, these are *compound*—and may be regarded as the "last bodies constituting the organism to which the tissues can be reduced by mere anatomical analysis, and which admit of no other subdivision without *chemical decomposition.*" (Robin and Verdiel.)

Research up to this time has established the presence in the human body of 84 of these immediate principles—all of them compound, except oxygen, hydrogen, and nitrogen.

Twenty-four (24) of these principles are of *mineral* origin; forty-two (42) are formed within the body by *disassimilation;* and eighteen (18) are called *organic substances.*

These elements, *chemical* principles, and *immediate* principles unite variously to form *histological* elements, the *tissues*, and the latter unite to form *organs.*

It is no easy matter to classify or enumerate the tissues. Where there is but a single histological element, as for example a cell or fibre, we say the tissue is *simple;* if two or more elements are present as cells and fibres, or cells, and fibres, and a homogeneous element, we say the tissue is *compound.*

These principles, chemical and organic, and the tissues which they form, are, when in the normal state, necessarily under the influence of several forces—chemical, dynamical, and vital.

How now does a medicine act on a body thus constituted of fifteen chemical elements, of eighty-four organic elements, arranged together in the form of tissues and organs, and normally under the influence of chemical, dynamical, and vital forces? This question of course applies to the action of a medical agent on a healthy body. An individual takes a dose of calomel into his stomach, and what are its effects? What change is produced among the chemical elements as to quantity, quality, relative state, etc.? What among the organic! What on the tissues? Does it disturb the forces chemical, dynamical, and vital, and how? These are but a few of the questions patent to the inquiry, and without they are answered, our views of the modus operandi of the drug administered must remain very crude. Has any one answered them? It is only necessary to look through our literature to see, not how they have been ignored, but to see the weakness of those who have made the attempt to answer them. The Methodic sect attempted the explanation on *mechanical* principles,—Locke (Essay on the Understanding) gives it as his opinion that the shapes of the minute particles of medicines were sufficient to account

for their several operations.—Boerhaave, Pitcairn, Perry, Mead, Fourcroy, Van Sweiten, Huggens, Bellini, favored this theory.

The attempts to explain the action of medicines on *chemical* principles had its origin most likely with Galen. He considered all medicines to be *hot, cold, moist,* or *dry*. The Alchemists of the middle ages gave an impulse to Galen's suggestions. They imagined that by their Philosopher's stone they could purify the *base metal* of the body. Valentine, Paracelsus, and Van Helmont supported this chemical hypothesis; and in Salman's Pharmacopeia of 1792, it is laid down as axiomatic—notwithstanding this period was illuminated by Newton and Boyle. These efforts to explain the action of medicines on chemical principles failed, perhaps mostly from the circumstance that nothing, comparatively speaking, was at the time known of chemistry.

The progress of chemistry at the present day, particularly of organic chemistry has, among other results, had the effect of reviving the chemical theory of the action of medicines. Shultz, Muller, and Leibig, are all advocates of the chemical theory. The superior knowledge possessed by these writers of physiology and of chemistry, has enabled them to bring forward a number of very striking arguments. Acids and alkalies figure prominently in their explanations, as they did formerly with the Alchemists. Both are said to act upon the blood; the former destroy the corpuscles, the latter prevent coagulation of the fibres of the plasma. The similarity of the composition of quina and morphia, it is supposed, explain their operation on the brain. And the chemical affinity of alcohol for the brain substance is supposed to explain its exhilarating or inebriating effects. Williams, in his Principles of Medicine, and Barlow, in his Practice, also favor the chemical hypothesis. The former regards it as proper that something definite be known of the normal, chemical, and histological composition of the part affected; that the forces by which it is actuated be understood, and as sequences that the changes from the healthy state be correctly appreciated. With such knowledge we are prepared to estimate the action of external and internal agents upon the system in health and disease.

Grounded mostly on the chemical hypothesis, a practice has recently grown up which makes the pathology of the case consist in changes in the *quantity, quality, etc.*, of the elementary constituents. If the patient is daily losing fat and flesh, the practice is to feed him upon these articles, or administer alcohol to arrest the destructive

assimilation. If the waste is in the osseous tissue, or in the nervous, the patient should take phosphates; if too much fibrine in the blood, alkalies should be given; if too many red corpuscles, (Plethora) acids—if the albumen of the liquor sanguinis becomes deficient by a continual drain by the kidneys, articles containing albumen in abundance should be used as food.

Not satisfied with any of the modes to which we have alluded for explaining the action of medicines, other writers have contended for the elucidation by other methods. By *degrees of stimulation*, (Brown); by *counter stimulation*, (Rasori); by *opposition*, (Hippocrates); by *similar agencies*, (Hahnemann); by *eliminatives*, (Sydenham); by *alterative* actions, (Broussais); (*Headland on Action of Medicines.*)

It would be a very poor compliment to the systems just enumerated to say that all of them are purely speculative, and yet who can pay them a better one? Each one of them has some facts in its favor, and to this circumstance has its currency been due. No one of them, however, nor all of them put together, is adequate to the emergency before us. Brown's system will explain the nutritive and exhilarating effects of alcohol; Hippocrates', ("*contraries cure contraries,*") the action of a purgative in constipation; Rasori's, the action of tartar emetic in inflammation of pulmonary tissues, and the action of stimulants when the vital energies are depressed; Sydenham's the action of Dover's powder on the skin, or nitrate of potash on the kidneys. Broussais, who supposed medicines acted by an *alterative* or *revulsive* effect, is too latitudinarian. The terms, *alterative* and *revulsive*, are susceptible of a variety of explanations. The notion of Hahnemann, that "like cures like," which, it will be observed, is the very opposite of that of Hippocrates, has not a single fact, that we are acquainted with, in its favor.

A pretty large proportion of the profession, and a proportion that embraces much capacity and learning, are in the habit of shying off from all these theories. They look upon them as wanting in a very essential particular—*verification under all circumstances.* Besides, none of them seem to give full credit to the presence in the organism of the vital power, and the influence which this exerts over agents applied to the body externally or internally. This principle makes the difference between a dead body and a living one; and being of this kind of consequence, its omission in any calculation relating to the movements of the body is, to say the least of it, ab-

surd. If it can preside over origin, development, and growth, it is certainly not negative in its influences with reference to the presence within its dominions of any extraneous matters. There is a certain class who believe that it even does its own doctoring—that when a screw gets loose, or a wedge drops out, the derangement is adjusted by the *vis medicatrix naturæ*. Another class believe that all the efforts of the physician should be confined to that of assisting the *vis medicatrix naturæ*. Now, neither of these doctrines of the vitalists are worth anything in the emergencies of practice. The Creator has stamped them both as false by the simple circumstance that He has *created medicines that will cure disease*, and this, of course, He would not have done if it had been unnecessary—if the vital force were always competent to the task.

As a consequence of the partial and imperfect character of all these systems to explain the *modus operandi* of medicines, we come to the conclusion with which we started out—that nothing scarcely is known of the subject. More research is necessary for the solution of the problem. If it is ever solved, it will no doubt be found that several of the systems passed in review will contribute something, but that those systems founded on physiology, as made known by vivi-sections, by chemistry, and the microscope, will contribute the most.

Diabetis.—We now let off the reader from the brief review of the *modus operandi* of medicines, for the purpose of calling attention to a disease met with, more or less frequently, in every physician's practice, and which has proved to be a kind of *opprobrium medicorum*. We allude to *diabetis*. Its prominent symptoms are *excess* in the urinary secretion, and *sugar* in the urine. Its cause was at first referred to the kidneys, thence to the stomach, thence to the cerebellum, and now to the *liver*.

The researches in organic chemistry show that a considerable proportion of the food we eat contains sugar. A large portion is also produced in the body by the action of the pancreatic secretion on the starch contained in food. This sugar is taken up from the intestines and conveyed with the blood of the portal vein to the liver. In the liver it undergoes a remarkable change—it acquires the capability of becoming *oxydised in the lungs*, so that it becomes subservient to the purposes of forming carbonic acid, in the generation of animal heat, and of serving as nutriment to the adipose and cartilaginous tissues. Two things, therefore, appear to be essential, with

reference to the sugar introduced into the system with the food, and that which is transformed from starch by the agency of the pancreatic secretion, viz: That it be dissolved in blood and acted on by the liver. Now, the cause of diabetis appears to be this. The sugar is not acted on by the liver, so as to render it capable of being oxydised in the lungs, but passes through the organ unchanged, and therefore it proceeds unchanged through the lungs, and being thus unfitted for the purposes of respiration or nutrition, it is eliminated by the kidneys, its presence in these organs stimulating them to an increased flow of urine.

Such is the explanation given by Bernard and Pavey, of the pathology of diabetis. This explanation, however, throws no further light on the treatment. This remains in *statu quo*, and is proverbially inefficient.

Accepting this view of the pathology, we can see no great propriety in excluding from the diet of the patient articles containing sugar, or that are changed into sugar. It seems that the trouble is in the liver, and remedies, as a consequence, should be addressed to this organ. But what is the character of this trouble. Is it a lesion of function, or a lesion of structure, or both? We are told by Bernard that the liver fails to capacitate the sugar that passes through it for oxydation in the lungs. Why does it fail? The answer to this question may do something in the way of suggesting remedies.

Function of the Liver.—What is of more consequence than a knowledge of the functions of the liver, and yet what do we know about it?

The organ has, in all ages, figured largely in pathology. It has been accused, at one time or other, of having a hand in one-half the troubles that affect mankind. Routinists in practice soon find here a convenient point for locating troubles they are unable to diagnose; while the man of science is really puzzled to know how, or in what manner the organ becomes the seat of disease. We have much in the books about "*biliousness*," "*derangement of the liver*," &c. But what do these terms mean? Until we understand something of the physiology of the organ, of course we are unprepared to appreciate a "derangement," a departure from the healthy standard.

In past times, the organ has been regarded as *excretory*, as designed to eliminate useless, worn out matter. But since Berzelius found that one thousand parts of fresh human fœces only contained nine

parts of a substance similar to bile, the theory of the liver being a direct excreting organ has begun to be received at a discount. According to the latest experiments, we have eight ounces of bile secreted in twenty-four hours, and poured into the alimentary. Only a trace of this, according to Berzelius, is found mixed with the fœces. In other words, if we credit the most trustworthy researches, a man secretes, daily, about fifty times as much bile as can be detected by the matters discharged by the intestinal canal. What now becomes of the bile? Leibig, (Chemistry applied to Animal Physiology,) some years since, suggested that, it being composed of hydro-carbonaceous products of the disintegrated tissues, is absorbed from the alimentary canal, and finds its way to the lungs, where it is oxydated, and thus serves the purpose of producing animal heat. There may be some truth in this view. But it is now known that if all the solid portion of the bile were re-absorbed from the alimentary canal it would not furnish more than one-twelfth of the total amount of hydro-carbon eliminated by the lungs. This theory of Leibig has been, as a consequence, very essentially modified. The hydro-carbonaceous matters resulting from the disintegration of the tissues, are supposed to be converted into two resinous acids, the *glycocholic* and the *taurocholic*, a certain fatty substance, *cholesterin*, and pigments. These acids and fat, after serving, as is supposed, some purpose in digestion, are re-absorbed and undergo oxydation, whereby they are carried off in the form of carbonic acid and water. This, it will be observed, makes the office of the liver *indirectly* excretory. Thus we have the bile disposed of—the liver having the business assigned to it of "gathering up the chips," and preparing them for the combustive process by which the body is kept warm.

Magendie and Thompson some time since called attention to the circumstance, that when large quantities of food containing *starch* or *sugar* have been employed as food, the blood is found to *contain* sugar. More recently Bernard has shown that the blood of the hepatic vein, and that of the right auricle, contain more sugar than does the blood of the vena portæ. Furthermore, this author has shown that the liver can actually *generate sugar*, this article being found in the hepatic veins when none at all could be found in the vena portæ. What now becomes of this "*liver sugar?*" It is said that it goes from the liver through the right side of the heart to the lungs for the purpose of assisting the bile in keeping up the calorifying process; a part of it, as in herbivorous animals, where the

quantity is large, being converted into fat, and thus serving as nutriment to the adipose tissues. This makes the organ again *indirectly* an excretive organ, and, besides, conveys the impression that it is concerned somewhat in nutrition.

The sugar generating faculty of the liver seems, from some recent experiments, to be under the influence of the nervous system, for if the medulla oblongata be irritated in that part which lies in the groove between the corpora restiforma and corpora olivara, the production of sugar by the liver is so much increased that artificial diabetis is produced.

The experiments of quite a number of physiologists lead to the conclusion that the liver is also in some way or other concerned in the generation of *fat*, and this seems to be sustained by the same arguments which support its agency in the production of sugar. While capable, therefore, of the exercise of both offices, the production of sugar and the production of fat, it seems that the former is most active in carniverous, the latter in herbivorous animals.

Without premising any more on the physiology of the liver, we may take what has been noticed in this respect, as the stand point for a few thonghts on the diseases of the organ. These, of course, must relate either to function or structure. To the former we shall only, however, devote a few remarks.

The functions of the organ being *indirectly* excretive and *partly nutritive*, we would necessarily be led to think of the symptoms which indicate a departure from such standards. And what are they? What sign is hung out to show these alterations? In what do they consist? Do they consist in increased action, diminished action, or in perverted action? When the liver separates too much glycocholic and taurocholic acids from the blood, or too much cholesterin, what effect on the economy? Would such a state of things give rise to emaciation, increased respiration, etc.? Or what effect on the intestinal canal simply from the presence in it of more than the normal amount of bile? Suppose, however, the opposite condition—diminished action. What now results to the system? The organ fails to separate the hydrocarbonaceous matters, the disintegrated tissues, and hence these substances remain in the blood. Does this matter poison the blood like retained urea? Is there not a difference? The latter is a direct excretion, the former not, according to physiology, as we have seen. If the elements of the bile are not separated by the liver, and thus arranged for oxydation

may they not pass directly to the lungs and be there oxydated without occasioning any inconvenience? Or, what would seem equally practicable, at any rate so far as the cholesterin is concerned, pass directly to the nourishment of the adipose tissues. We are in the habit of saying when the surface is discolored a little, that the patient is "*bilious*"—too much bile. But what do we mean by this term? Do we mean that the "*chips*" are not gathered together and burnt up?

We have seen that the liver generates sugar when moving according to the laws of health. Now what results, we may again enquire, to the system, when it is tardy in this office; or in the opposite state, when it overworks itself. Take for instance the case of a carniverous animal with a liver in the passive state so far as the production of sugar is concerned, and what disturbances have we of its organism? Are the effects similar to those resulting from deficiency in glycocolic acid, taurocholic acid and cholesterin, or are they different? Then, again, we might enquire, what trouble when the organ generates too much sugar? What *even are the symptoms of a derangement in the sugar-making faculty of the liver?* We have been told that when the liver fails to capacitate its own sugar, or that that passes through it by way of the portal vein, for oxydation in the lungs, that we have diabetis—the sugar passing off by the kidneys. But is not this a mere hypothesis? Let us hear first the results from the generation of too much, or from the generation of too small a quantity of sugar.

Two cases of Ovariotory. By J. W. HAMILTON, M.D., Professor of Surgery in Starling Medical College.

CASE 1. Miss E. F. T., aged 25, a sprightly, intelligent young lady, from Marsailes, Hardin county, O., came under my observation in the early part of October last. Repeated examinations, made in connection with Professors Carter and Smith, elicited the following:

In February, 1857, the patient observed a tumor of the size and shape of a hen's egg, in the situation of the left ovary. After a few weeks she ceased to observe it, but soon afterwards she became conscious of enlargement in that region. At the end of a year this

had advanced to such a degree as to attract the attention of her female friends. During this time she was the victim of severe neuralgia. She ceased to menstruate in February, '58. In May last had scarlatina; in September had chills. For more than a year she had not been able to pass a whole night in the horizontal posture, except occasionally from the free use of morphine. For the last eight months had very rarely eaten without vomiting, and for about an equal period has not been able to sit up a whole day. Appetite poor, emaciation very great, the estimated weight being 70 pounds, without the tumor; urinary secretion about 10 ounces in the twenty-four hours. Pulse 108, with increased frequency in the afternoon and evening.

An examination per vaginam resulted as follows: the os uteri was found against the symphisis pubis; the soft parts about the urethra were edematous; the cervix seemed short; Simpson's sound introduced into its canal would only pass about half an inch. Uterus firmly fixed, without tenderness or fluctuation. A hard mass, believed to be the retroverted body of the organ seemed to lie behind and above the posterior lip of the os. An examination per rectum gave satisfactory evidence of the correctness of this supposition, revealing the presence, furthermore of two nodules, of the size of hazel nuts in the recto-vesical septum. These were supposed to be either enlarged lymphatic ganglia or hemorrhoidal tumors.

The abdomen was greatly enlarged. A firm fluctuating mass completely filled it, and distended it to its utmost capacity. The fluctuation was present in every part, but was comparatively obscure in the illiac regions. Percussion elicited perfect dullness except about the epigastrium and right and left hypochondriac regions. The enlargement was greatest on the left side. Could not learn that the tumor was ever moveable.

A careful consideration of all the circumstances of the case resulted in the conclusion that within a very few months, at farthest, the case must result fatally. Besides the sufferings of the patient were such as to lead her to prefer any thing which gave even the slightest hope of relief, to her present condition. She was informed, that commencing the operation, there was one chance in five or six that we might be obliged to abandon it as impracticable, and that from such abortive effort there was one chance in four or five that her death would be the result. That in promising cases, the operation gave about equal chances of death or recovery, but that her

case was one of less than ordinary promise. This statement being distinctly made, she was informed that our united judgment was in favor of an operation, as it gave the only rational *hope* of either recovery or relief. She decided, very promptly, in favor of the operation.

Oct. 18, P. M. Arranged to have the bowels evacuated by a dose of Oleum ricina, to be followed by an enema, and the room raised to a temperature of 82°, so as to have the patient and apartment in readiness for an operation on the following day at 11 A. M.

Oct. 19, 11 o'clock, A. M. According to previous arrangement, met my colleagues in the faculty of Starling Medical College, with my friends, Drs. Sacsche, Hills, McMillen and Barr. Finding the room and patient duly prepared according to the instructions of yesterday, we at once proceeded to the operation.

The patient was placed on a table in the usual manner, and anesthetized by the use of chloroform. The bladder having been emptied by the use of the catheter, an incision was made half way between the umbilicus and pubis two and one-half inches in length. Thus exposing the peritoneal covering of the cyst, and the walls of the incision retracting, an abundance of tissue resembling very vascular omentum was exposed. The finger was now introduced to test the character of the adhesions. These, consisting of the above omentum-like tissue were easily separated. Having thus come to the conclusion that the operation was practicable, we proceeded to its further execution. The incision was extended so as to reach from a point two inches above the umbilicus to the symphisis pubis, a distance of ten inches. The sides of the cyst having been separated, its anterior portion projected prominently through the incision. At this stage, by the use of a very large trochar and canula, twenty-four pounds of rather thick brown serum were drawn off. The summit was now separated from its connections and drawn out. The upper part of the posterior aspect was free from attachments, but as we descended toward the brim of the pelvis they were abundant and most difficult of separation. On reaching the bladder it was exceedingly difficult of identification. It seemed to be a subcyst, developed in the walls of the main one. A sulcus was however, finally traced by peeling the shreds of lymph from above downwards, and observing that they passed between them. The vascular supply was so abundant in this situation that a resort to cutting instruments was not admissable. Though separated exclu-

sively with the fingers the hemorrhage was, by no means inconsiderable. The entire brim of the pelvis, and inner aspect of the false pelvis with both ovaries and broad ligaments were the sites of equally powerful attachments. The separation of them was most tedious and difficult, and of necessity was effected without the use of cutting instruments. The uterus was free and deeply wedged down into the true pelvis.

These efforts at detachment were successful in separating the cyst from everything except the ovaries, and a small portion of the broad ligament of the right side. These were inseparable to everything not involving the use of cutting instruments. They were treated as pedicles, being transfixed, and ligated with ligatures consisting of four sizes of saddler's silk. The mass being divided just above them, the ligatures were allowed to hang from the lower part of the wound, where they were fixed in the form of the figure of 8 around a large needle transfixing the walls of the incision for that purpose.

The external wound was closed in the usual way by the use of long strips of adhesive plaster, interrupted sutures, &c. The operation was tedious and difficult, occupying more than forty minutes, and inducing extreme prostration. The latter part of it was performed amid the most anxious apprehensions for the safety of the patient.

Seven o'clock, P. M.—Reaction very imperfect; pulse 140; extremities cold.

Oct. 20, morning.—There is fair reaction; extremities comfortably warm; pulse 144.

Oct. 24.—There has been incessant vomiting of greenish fluid, containing in suspension, numerous shreds and floculi of a grass green color. Pulse varied from 140 to 155 per minute. External wound closed by first intention, except at the lower part, from which a rather abundant discharge of opaque serous fluid intermixed with shreddy sloughs escaped. There was some tympanitic distension, and some tenderness during this time. The patient's stomach would only bear the slightest quantities of light slops, and even under this regimen suffered greatly from hiccough with incessant burning sensation at the stomach, and constant disposition to vomit.

Oct. 25–28.—During this time there was gradual improvement. The wound opened slightly when the stitches were removed; pus became laudable; pulse came as low as 113; bowels kept in a state

of constipation by the use of morphine; urinary secretion becoming free.

Oct. 30.—Since last entry there has been gradual improvement; pulse has ranged from 108 to 120; vomiting has subsided, and there is slight relish for food; tongue moist; patient is much more comfortable than for months past; evacuates twenty-four ounces of urine during each twenty-four hours, without assistance from the catheter; on removing needle at the lower extremity of the wound about three inches of it are shown not to have united. This however is granulating nicely. An ounce or two of laudable pus escapes each day. Bowels still constipated. Ordered injections of beef soup, to be repeated three times each day.

Nov. 3.—There were to-day for the first, free fecal evacuations; case progressing satisfactorily.

Nov. 10.—Ligature came from left ovary; patient sits up three or four hours per day; has a most lively appreciation of the luxury of sleeping and eating.

Nov. 15.—Ligature came from right ovary; during the last few days the purulent discharge has been rather free; patient has not seemed to gain; pulse has been as high as 132 per minute.

During the last two weeks of the month of November the discharge gradually diminished in quantity and her pulse came down to 114. She suffered incessantly however, from a cough which was obviously induced by coal dust, never having been accustomed to it. On account of its serious effects upon mind and body she was removed to Kenton, Ohio, on the first of December, and a few days subsequently, a distance of eleven miles, over one of the worst mud roads in Ohio, to her home. We received a letter dated three weeks after her removal, informing us that the cough had entirely subsided, that the pulse was less than 100, and that the discharge had pretty much ceased.

The most striking feature of this case relates to its pedicles. As we ordinarily understand these it *had none*, but such as they were, it had *two*. That this may be understood, we must remark that the walls of the cyst were very thin, and that the ovaries seemed merely to enter into and constitute so much of them at that point. Although the history of the case renders it certain that the cyst was formed from the left ovary, its attachment to the right was equally intimate, and more extensive, because of enlargement of the ovary and the impracticability of clearing the corresponding broad ligaments. We believe this feature of the case to be without parallel.

A practical point is worthy of notice. Both pedicles were transfixed, and each half ligated as usual. The cord was made of four sizes of saddler's silk. None of these were cut off, so that 16 sizes, (a pretty good seton) were brought out from *each side.* This course was suggested to us by a conviction that the long shreds of lymph, and the large pedicles spoken of, could not fail to produce extensive and protracted suppuration and sloughing. We regard it as having been a saving clause in the case. Without the opportunity for escape of fluids thus presented, it would probably have been fatally aggravated by their presence.

The cyst weighed but one and three-fourth pounds, making the weight of the entire tumor twenty-five and one-fourth pounds, or more than equal to one-third the estimated weight of the patient. It had in its walls a single sub-cyst, large enough to hold ten ounces.

Case II. On the 22d of Oct. last, we received a message at the hands of a brother of the patient, requesting us to see Mrs. D., a resident of Jackson Tp., Franklin county, Ohio. Our friend Dr. Robinson, of Lockbourne, Ohio, was present at our interview with the messenger, and at once consented, as the case was in his vicinity, to see it with us. Accordingly Dr. Drury of Columbus, accompanying us, we saw the case for the first time, in company with these gentlemen, on the following day.

Found Mrs. D. to be a large woman, aged 36, apparently of great candor and good sound common sense, of good constitution, though greatly emaciated and very feeble, with a pulse of 90. Learned that she had suffered three miscarriages, the last of which occurred ten years previously; that eight years previously she noticed a small kidney-shaped swelling in the situation of the right ovarium; that it had grown, at times rapidly, with quiescent intervals, so that the greater part of its present dimensions had been attained some months previously; that till within two or three months it had been perfectly moveable, falling about in the abdomen from change of posture; that the last two or three months however, had been attended with especially rapid increase in size; that furthermore, her general health having been habitually good, she had never taken medicine, or been subjected to treatment on account of the ovarian difficulty; that six weeks previously she had an attack of colic, on account of which and constipation following, she was

under the care of a neighboring physician for a few days; and that since that time her feebleness had been such as that she had been pretty much confined to bed; that she had menstruated till within a few months, &c.

The tumor, in reference to which our aid was sought, we found to be an ovid mass, extending from the right illiac region to the left hypochondriac and epigastrium, the transverse dimensions of which were such as quite completely to fill the abdominal cavity. Fluctuation was very distinct through its long diameter and about the two extremities of that admeasurement, but was never detected between points transversely related to each other. The anterior and left aspects seemed soft and elastic, but the right was very firm and unyielding.

Exposing the vagina and cervix uteri after the method of Sims, we found both these parts healthy, the former, however, was corrugated, and the latter acuminated and elongated to a remarkable degree. No fluctuation was presented in this direction. Subsequently Simpson's sound was carried near two inches into the uterus with the utmost facility.

Our diagnosis was an admixed cystic and solid ovarian tumor, the cystic portion of which was supposed to predominate.

Although we regarded this as a more eligible case for an operation than the preceding one, we gave a similar statement of its hazards, making it stronger, however, and repeating it time after time, and stating to the family that we wished the statement repeated to their neighbors, so that if we should conclude upon an operation, all its hazards might be distinctly understood and assumed. Directing the liberal use of whiskey, quinine and iron, we agreed to see her again within a fortnight.

Nov. 2.—Saw Mrs. D. again; pulse 84 per minute; appetite good, sleeps fairly, is anxious for an operation. Her condition being very fair I consented to undertake it. But as the cold season had arrived, and the small cabin in which she lived was very open overhead, and had but a single small window, I declined performing it there. I however made an engagement to perform the operation on the 13th of Nov., at Starling Medical College, providing suitable rooms for the purpose. After the operation was decided upon, I presented the most favorable aspect of the case to the patient and continued to do so throughout.

Nov. 13. The patient's bowels having been evacuated by the use of castor oil and an enema, and the bladder emptied, the patient was placed on the operating table, in the surgical amphitheater, the temperature 85° and the entrance carefully guarded. Present—the class of Starling Medical College, with the faculty, and a considerable number of other physicians.

Laying open the abdominal parieties to the extent of eight inches the tumor was at once exposed. Commencing the work of separation, the adhesions were found astonishingly firm, so much so that it was at once regarded as impracticable, either to recognize or separate them. Having succeeded in effecting the separation of a surface as large as a hand or two, amidst the utmost obscurity as to the line of connection between the tumor and the peritoneum, we decided the operation as impracticable, and abandoned it.

Introducing a large trochar towards the lower part of the incision, we failed to reach fluid. Introducing it at a higher point and carrying it nearly its whole length, we still failed. This was a disappointment, for, though we expected to be obliged to penetrate to some depth at these points, we had no doubt of our ability to reach fluid. Introducing ten silver sutures, applying adhesive strips, &c., the patient was covered with warm buffalo robes and carried a distance of twenty feet to her room, which was being kept at a emperatures lightly above 80°.

6 o'clock, P. M. Patient comfortable, but irreconcilably disappointed. Pulse 87; serum escaping at the rate of about a half pound per hour.

Nov. 14, eight o'clock, A. M. Pulse 110. The tumor is very tense and pulsates like an aneurism. Serum escaping freely, in connection with the extrication of most offensive gas.

6 o'clock, P. M. Pulse 136, very feeble, serum very irritating to the parts over which it runs; nurse supposes that a gallon escaped since my last visit. Patient anxious, evidentiy sinking.

Nov. 15. Patient expired at 5 o'clock, A. M.; forty-two hours after the operation.

12 o'clock, M. The friends cheerfully consented to a post mortem, in the surgical amphitheater, but as the hearse was in waiting to remove the body to her home, I was not allowed time to send for my colleagues or other physicians. Present—the class.

The offensiveness about the wound was such as to make the examination the most disagreeable duty we ever performed. Laying

open the abdominal parieties, we found it filled with a mass, black as tar, and as fragile on its surface as wet brown paper. Its anterior and lateral surface was perfectly adherent, though slight effort was sufficient to separate it or tear its outer portion to pieces. The posterior surface was free, and all the organs of the abdomen and pelvis were free from both attachments and disease, but were discolored, more or less, wherever they touched the sphacelated mass. The pedicle was three and a half inches long, and but little larger than a very large rye straw. It was attached to the right broad ligament at its junction with the right ovarium.

Description of Specimen.—The tumor was not weighed. Its weight, however, was estimated at eighteen pounds. It was about fifteen inches long, and shaped like a long watermelon. Cutting it open, we found the right side, and masses scattered through it irregularly, dense and fibrous. The left side and summit consisted of a very succulent, semigelatinous substance, with occasional bands of fibrous tissue, and very numerous sinuses. The lower part consisted mainly of sinuses or cysts, the largest of which would hold three or four pints of fluid; another, about a pint. The most of them being small, at the same time very numerous, however, they presented the appearance, in an exaggerated degree, of a cut surface of very coarse sponge. All these cysts were empty, and yet not collapsed. While the surface was black, sphacelated, and perfectly fragile, the central parts were firm and apparently only gangrenous.

Interesting questions arise in connection with the adhesions in this case. As one of my colleagues expressed it, they were as strong "as the integument," at the same time so perfectly blending the parietal peritoneum, and the peritoneal covering of the tumor, that their relation was just as intimate as those of the different coats of the skin. Yet, undoubtedly, the mass was perfectly free from adhesions three months, or less, previously. In making up our estimate of the strength and separability of these, we take *time* into consideration as a principal element. We are satisfied, after mature reflection, that this is a mistake. The effusion and organization of lymph on serous surfaces, under favorable circumstances, is a rapid process. We have a specimen of false membrane, taken from the costal pleura ten days after its being punctured by a knife. Its organization was such that portions could not be separated at all. The specimen is so thick and strong as to require a strong effort to lacerate it.

In the celebrated case of Pool, although the pericardium and endo

cardium were lacerated by a ball, yet, within ten or twelve days, these parts were so perfectly, and yet so strongly adherent as to leave no trace of the orifice.

Why was this sphacelation so rapid, and from so slight a cause? There is abundant explanation in the peculiar circumstances of the case. The pedicle was remarkably slender and long. It did not contain an artery a line in diameter, although there may have been several smaller ones. At all events, considering the size of the tumor, and the very trifling size of the pedicle, it is very evident that the circulation and vitality must have been exceedingly slight. The introduction of the trochar and the injury done to the surface were sufficient to excite a grade of action, which, though slight, was sufficient at once to exhaust the feeble grade of vitality.

It attacked first, and was most advanced in the surface, because, probably, inflammation was most active and advanced in the peritonal covering of the tumor and for obvious reasons sphacelation was more advanced and perfect in the adhesion than elsewhere, because they were not only adventitious, but recent.

Would it have been better to dissect out this tumor? We have no doubt but it would have been, had it been practicable. As far as hemorrhage is concerned, we do not think that there could have been any difficulty whatever. But the tumor not being lessened by the trochar, it would have been necessary to make the dissections coextensive with the parietal peritoneum, with an incision from the pubis to the ensiform cartilage. Owing to the intimacy of the blending of peritoneal layers, the operation would almost inevitably have been so protracted as to lead to the death of the patient on the table.

A word in regard to the success of Ovariotomy in Ohio. In 1854, Dr. P. J. Buckner, now deceased, made a report to the State Society, that was supposed to contain all the cases operated on up to that time. It included eleven cases, of which six were successful and five fatal. Since that time, without having made this a special subject of attention. we have learned, through private channels mainly, of the following cases:

Professor Howard operated twice, found inseparable adhesions in one case, and abandoned the operation as impracticable, his patient dying within a few days. The other was cured and is still living. One esteemed friend operated twice, one patient dying, one recovering. Another undertook it twice, and was obliged to abandon it as

often, one of the patients dying, one surviving. Within a few months, an eminent surgeon performed the operation, his patient dying within a few hours. Another made a moderate incision through the abdominal parieties, his patient vomited, the tumor was thus forced into the external world, when ligating a small pedicle, the operation was completed. The patient recovered. We have been informed of three cases by another gentleman; two fatal, one successful.

Of the operations performed since 1854, that we have learned of, accordingly, there are thirteen, five successful and eight fatal. So that up to this time we have in Ohio twenty-four cases, eleven successful and thirteen unsuccessful. This is probably about an average result.

We mention these cases without the use of names, because our information being mainly indirect, and from private sources, such use is unwarranted and might do injustice.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

A New Method of Amputation. By M. MAISONNEUVE.

M. Maisonneuve read before the Académie des Sciences, April 26th, 1858, a note on a new operation for Amputation, which he calls the *diaclastic method.* The peculiarity of this method is, that for its execution neither the knife is used for dividing the muscles, nor the saw for cutting the bones, nor permanent ligatures to arrest hæmorrhage; and that, contrary to the ordinary methods, the division of the bone constitutes the first step of the operation, and precedes the division of the soft parts.

The principle object of this method is to avoid the occurrence of purulent infection, by substituting for the ordinary process of division by cutting instruments, the process of breaking, tearing, and extemporaneous ligature, the contusing action of which obliterates effectually the vascular orifices.

M. Maisonneuve uses for the execution of this method an *osteoclast,* or instrument for breaking the bone; and a powerful *serre-nœud* for the division of the soft parts. The author describes the operation in the following manner:

"The patient having been brought under the influence of chloroform, the surgeon applies the osteoclast precisely on the spot where he intends to break the bone, taking care to protect the soft parts in

contact with the instrument by thick compresses; then, giving the screw several turns, he produces the fracture; he removes the instrument, and immediately substitutes the serre-nœud, in the metallic loop of which he embraces the member ten or fifteen centimetres below the point of fracture; then, turning the screw, he gradually compresses the tissues until the circulation in the vessels is interrupted. This done, he divides the muscles to the bone by a circular incision with the bistoury, two or three centimetres below the serre-nœud, tears off by a twisting movement the extremity of the member which is attached merely by some adhering portions of muscular tissue, and finishes the operation by continuing to turn the screw of the serre-nœud until the tissues embraced in the loop of the ligature are completely divided. If the last step of the operation is conducted with prudent slowness, not a drop of blood will ooze from the wound resulting from the amputation, whatever the amputated member may be."

This singular method has been applied with success to five amputations of the leg and to one of the forearm.—*Archives Générales*, June, 1858, from *Medico-Chirurgical Review.*

Rationale of the Saccharine Treatment of Diabetes.

Dr. John Sloane, in a paper read before the Leicester Medical Society (April 20, 1858), gives the following rationale of the saccharine treatment of diabetes:

"Glucose, the variety of sugar found in the urine of diabetics, is generated in the livers of animals throughout the animal kingdom, almost wholly irrespective of the nature of their food. The glucose secreted by the hepatic cells passes into the hepatic veins, thence into the inferior vena cava, and through the right side of the heart to the lungs, where, being exposed to the atmosphere, it sometimes completely disappears. Mr. Bernard has found sugar in the livers of mammals, of birds, of reptiles, of fishes, of molluscs, and of articulated animals. He has found it in omniverous, herbivorous, and carniverous animals. That the secretion of sugar is independent of the nature of the food, he proves by many experiments, of which I shall mention the following. He fed dogs exclusively on flesh for six or eight months; and when they were killed at the expiration of that period, he found as much sugar in their livers as in those of dogs fed upon a mixed diet. Owlets taken in their nests were fed exclusively on raw bullock's liver for three months, and were then killed; their livers always contained the normal quantity of sugar. Two dogs were fed solely on flesh, and two on amylaceous and saccharine food; they were all killed at as nearly as possible the same period of digestion, and the results of the chemical examination of their livers showed that the quantity of sugar secreted did not depend on the nature of their diet.

he intends to break the bone, taking care to protect the soft parts in

"Rollo recommended the use of fat for diabetics. M. Thernard and Dupuytren made them eat lard. We have fed dogs with lard and axunge; and we have found this very curious fact, that, under the influence of this alimentation, the sugar diminished in the liver absolutely in the same manner as if the animal had been kept fasting. In dogs to which M. Bernard has given nothing but pure water, he has found the secretion of sugar kept diminishing, and it ceased to appear about three or four days before its death. For the first thirty-six hours, the quantity continues considerable, but during the following days it diminishes very rapidly.

"A dog, having fasted thirty-six hours, had a copious repast of boiled sheep's head, and, three hours afterwards, was killed. The blood in the portal vein, previous to its entrance into the liver, contained no trace of sugar; whereas, in the blood from the hepatic veins, there was a considerable quantity. This experiment, writes Bernard, would alone suffice to cause one to admit, as a natural and necessary conclusion, that the sugar is produced in the liver; yet we have accumulated proofs of every kind about this proposition; and we have shown that the hepatic tissue constantly contained sugar, and that it was the only tissue of the body which offered this character.

"In animals fasting, the blood which arrives at the liver presents no trace of sugar; that which leaves it contains a considerable quantity. Inversely, the blood which arrives in the lungs contains sugar; and that which leaves it presents no trace of this substance. The sugar in this physiological state remains hidden between the liver and the lung, and does not show itself at the exterior. This statement is true only in an animal fasting. When the digestion commences, the quantity of sugar gradually augments; yet during the two or three hours following the ingestion of aliment, notwithstanding the increase of the saccharine secretion, all the sugar can be destroyed before it arrives at the arterial system; and it is only after the lapse of time that the production of sugar, surpassing the limits of destruction, becomes temporarily excessive in the organism. At this period of digestion, one finds sugar in all the vessels of the body, arterial and venous, and even in the renal arteries; but the proportion is too slight for any of the sugar to pass in the urine. Yet we shall see that, under certain physiological circumstances, the quantity of sugar can be increased to the point that it passes off in the urine without the animal being diabetic. Under the ordinary circumstances of digestion, this species of saccharine overflowing is manifested equally with animal or amylaceous diet, and it lasts about three or four hours. It is not less than six or seven hours after a meal that the excess of sugar in the blood commences to disappear, and that the equilibrium between its production and its destruction tends to re-establish itself as before digestion. This species of oscillation, which the glycogenic function presents, it is very important to know; for in the pathological state (diabetes) we find exactly the same phases, with the exaggeration we should expect in this malady. Different observers—Rayer in France, and

pend on the nature of their diet.

Traube in Germany—have remarked that there are diabetics which do not pass sugar in their urine, except at the time of their digestion; and that, in the interval, their urine does not contain sugar. This phenomenon can be reconciled very naturally with the physiological fact which has been pointed out to you. There is nothing essentially different between the normal state and the pathological symptom, save the intensity of the phenomenon caused by a deviation of vital activity.

"The sugar is formed from the albuminous substances; and this sugar is the result of the physiological action of the liver upon those principles, which are divided so that their oxygen, hydrogen, and carbon, are grouped so as to form sugar, whilst their azote enters into other combinations, and probably into the azotized principles of the bile. One does not know, indeed, any other origin for the saccharine matter, which cannot be produced in the intestine without digestion. Experiment has shown us that during alimentation by means of albuminous substances, the intestine and the blood of the portal vein never contain saccharine matter of any kind. Neither gelatine or flesh produce saccharine matter in the intestinal tube by the known digestive processes. The amylaceous matters taken as food enter as sugar into the portal vein, and arriving at the liver in this state, are then destroyed by this organ and changed into an emulsion *par une matiere proteique speciale.* We have said that the sugar introduced into the intestinal tube does not augment the quantiy of this matter contained in the liver, but that it is there destroyed, and causes the appearance of an emulsive substance. That the sugar introduced into the intestinal canal does not augment the quantity of this matter contained in the liver, M. Bernard shows by the following experiments. He takes two rabbits, whose urine he first finds by testing, to be free from sugar. Into the stomach of one he injects a quantity of sugar in solution, with some ferrocyanide of potassium. Beneath the cellular tissue he injects half the quantity of an exactly similar solution. He examined their urine an hour afterwards, and he finds in that of the first not the least trace of sugar, while the urine of the second presents it in considerable quantities. But you may say that this difference may be accounted for by the intestinal absorption being less rapid than the subcutaneous; but in both the ferrocyanide of potassium was readily detected in the urine. This will prove that the absorption is equally effectual in the intestine as under the skin, but that, in the first case, the solution has abandoned one of its constituents, the sugar, in traversing the liver; whereas this has not taken place in the second instance. He arrives at similar results in the following experiments. Through a small opening in the abdomen of the rabbit, he injects a quantity of the same solution into one of the branches of the portal vein; and into the jugular vein of another rabbit he injects the same quantity of the same solution. It is clear that, in this mode of operating, we cannot have any difference in the absorption, as in both cases we introduce the substances directly into the blood. Nevertheless, we obtain exactly the same result; that is to say, that in the rabbit, in which we injected by the jugular, the sugar has passed into the urine with the

ferrocyanide of potassium, and with very great rapidity; whilst in the rabbit injected by the portal vein, the ferrocyanide of potassium alone will have passed into the urine, where one cannot find the least trace of sugar. These experiments are very conclusive. Bernard proves by experiment that starch, taken as food in the intestine by the influence of the pancreatic juice, becomes converted into sugar; and this passes into the portal vein. That sugar is destroyed by the liver, receives further confirmation, he states, by the facts known in the fattening of cattle. You all know that animals fatten most by the use of food in which starch predominates; that the geese and the ducks, in which the fat livers are artificially produced are gorged with a *pate* of maize or other amylaceous food: that the fat formed by an animal is not in proportion with the adipose matter which it takes; that, on the contrary, the animals which only eat fat, far from becoming fat, get lean rapidly. Hereafter it is not only the biliary secretion which we shall have to look upon in the liver; it has two other functions of capital importance—one the production of sugar, which is dependent upon the aliment containing albuminous matters; the other, the production of fat, which is dependent upon the amylaceous and saccharine matters in the food.

"Cane-sugar is never destroyed; it is constantly eliminated by the urine when it is injected directly into the blood; but this sugar, when in the intestine, is in part, at least, transformed into glucose. The latter, on the contrary, injected into the blood, can be destroyed in certain proportions.

"When we prick the mesial line of the floor of the fourth ventricle, in the exact centre of the space between the origins of the auditory and pneumo-gastric nerves, we produce an exaggeration of the hepatic (saccharine) function, and of the renal secretion; if the puncture be effected a little higher, we very often only produce an augmentation in the quantity of the urine, which then frequently becomes charged with albuminous matters; while, if the puncture be below the indicated point, the discharge of sugar alone is observed and the urine remains turbid and scanty. Hence it appears that we may distinguish two points, of which the inferior corresponds to the secretion of the liver, and the superior to that of the kidneys. As, however, these two points are very near to one another, it often happens that, if the instrument enters obliquely, they are simultaneously wounded; and the animal's urine not only becomes superabundant, but at the same time saccharine. The urine becomes saccharine in from one to two hours after the operation but seldom continues for more than one day.

"The secretion of sugar is not under the direct influence of the pneumogastric nerve; for if it be divided before irritating the floor of the fourth ventricle, sugar still appears in the urine. Bernard believes that the influence is transmitted by reflex action through the gangalia of the sympathetic.

"There is a phenomenon which is manifested, for example, when, after fasting a certain time, a great quantity of sugar is taken. The

intestinal absorption then proceeds with extreme rapidity. A great quantity of sugar arrives in mass in the liver; the mechanical circulation much prevails over the chemical; the sugar is poured into the general circulation in proportion much greater than occurs in the normal state; and it passes then into the urine, where its short-lived presence can be found for a certain time.

"M. Bernard, after a great many experiments in reference to the subject, has proved that there is a species of election in the excretion of matters which pass out of the organism. Sugar is eliminated in two ways only—by the kidneys, and by the mucous membrane of the stomach. When sugar is ejected into the blood of an animal to saturation, and puts it for a time into a state of diabetes, we do not find sugar in the saliva, in the tears, pancreatic juice, bile, nor perspiration; whilst the urine and gastric juice contain it in proportions more or less notable. These results entirely resemble those obtained in diabetic patients. Lehmann states, however, that he has obtained sugar from the saliva of a diabetic. The presence of sugar has been pointed out in the expectoration of diabetics. Bernard admits that sugar can be had in a notable quantity in the expectoration. But, he writes, we must not confound the bronchial mucus which these patients, almost always phthisical, in the last stage of the disease expel in abundance, with the salivary secretion properly so called; it is the mucosities formed in the lung which contain the saccharine matter. Nevertheless, this fact is not constant; for M. Raynor has reported to the Society of Biology a case in which the expectoration of a phthisical patient examined by M. Wurtz did not contain sugar. Bernard proves by the following experiments the statements regarding the election in excretion of matters which pass out of the organism.

"He takes a dog with a parotidean opening, into which he inserts a tube. Nothing flows by this tube, which proves that the secretion is not continuous. By putting in the mouth some vinegar he excites the flow of saliva, which passes out of the tube rapidly in large drops. He next injects into the jugular vein of the animal a solution containing sugar, prussiate of potash, and iodide of potassium. Immediately after this injection the salivary secretion is again excited in the same way. The saliva is received into three glasses. One is examined for sugar, and none is found. The sugar, therefore, does not pass in the saliva. The second is examined for prussiate of potash, and it is not present. The third is found to contain iodide of potassium. This substance then passes immediately into the saliva, whilst the prussiate of potash and the glucose, equally soluble, cannot be found. In the saliva extracted before the injection, none of the substances exist. In the urine of the same animal, after the injection, the prussiate of potash is found in considerable quantity, and the iodide of potassium in small proportion. As regards the sugar, there is none yet, but we shall find it presently; it requires an hour or more for the sugar to appear in the urine.

"The urine then eliminates all these substances in a manner more

or less rapid. The prussiate of potash appears first, and the glucose last.

"There is another secretion in which the presence of sugar can be found; this is the gastric. The passage of the sugar into the stomach has surprised most of the observers who have seen long since that when diabetics vomited, although they had eaten nothing but flesh, the vomited matters were saccharine. When it was believed that diabetes proceeded from a perversion of the digestive functions, it was considered that the flesh was changed into sugar in the stomach. But one need not now be mistaken; the flesh is not saccharine. Bernard himself has observed that, in diabetics who vomit fasting, in the vomited matters the presence of sugar could be found. But this has only occurred when the disease is at its greatest intensity; and in all those cases, even in the animals which have been rendered artificially diabetic, it is much more difficult to obtain the passage of glucose into the gastric juice than into the urine.

"The sugar is formed, as we have seen, at the expense of the albuminous substances. In the healthy man it is clear that a part only of these matters is consumed for this purpose. The diabetic who forms much sugar expends a very large quantity of azotized material; the blood is impoverished; and, although the patient eats enormously, he gets thin like a man badly nourished. The liver takes in a manner the ration of the other organs, which undergo a considerable attenuation, because the albuminous elements are transformed into sugar.

"M. Bouchardat has prescribed the use of amylaceous and saccharine matters in the food of diabetics. The facts which Bernard has himself witnessed in the practice of M. Rayer prove clearly the utility of azotized aliment. In the regimen of these patients, writes Bernard, vegetable aliments ought to be forbidden, as it is evident they augment the functional activity of the liver. You know, also, that they are excitants of the kidneys; that they are much more diuretic than animal matters. Thus all the herbivora pass much more urine than carniverous animals. In the azotized regimen, diabetics have the advantage of food which is not diuretic.

"I have at great length reminded you of Mr. Bernard's views regarding the formation of sugar in the animal economy. As some of them are of so novel a character, and so little in accordance with the notions formerly held, I have thought it advisable to mention the experiments upon which he founds his opinions. That they will, upon further investigation, be more or less modified, is not improbable; but they have been very generally received by the most distinguished physiologists and pathologists.

"From M. Bernard's investigations, we learn the following facts of importance in reference to the saccharine plan of treating diabetes:

"1. Sugar may be rationally administered to diabetic patients, inasmuch as the sugar found in the general circulation is almost always secreted by the liver, and as sugar introduced into the intestinal tube in its passage through the liver is there altered and con-

verted into an emulsive substance, which serves to fatten these patients, and thus to counteract their tendency to emaciate.

"2. Substances which contain glucose—such as honey and fruits, should be given to diabetics in preference to those containing cane-sugar, because the latter is not destroyed when injected into the blood, but is constantly eliminated by the kidneys; whereas glucose can be destroyed in certain proportions.

"3. Cane-sugar would be benficial to a certain extent; as when taken into the intestine, it is in part, at least, transformed into glucose; but if given in too large proportions to be thus constantly transformed, the disease would be probably aggravated by the presence in the blood, and subsequent excretion by the kidneys, of the former variety of sugar.

"4. The glucose should be given in moderate quantities at a time, and frequently, rather than in large quantities at long intervals; because, when much sugar is taken fasting, it is absorbed too quickly to admit of its complete destruction in the liver, and it passes into the general circulation, whence it is eliminated in the urine."—*British Medical Journal*, May 8, 1858, from *The American Journal of the Medical Sciences.*

Letter detailing a case of Criminal Abortion and Infanticide.

We publish the following letter, which appears to have been called out by our article on *Criminal Abortions*, which details one of the most horrible instances of depravity, is rather insanity, which we have ever known. This is one of the effects of advertising abortion pills; and that such a thing should ever occur in a civilized land would be a matter of astonishment to any but the physician, who sees so much misery and crime. Cannot this matter be remedied, and will not our brother editors aid us in the effort to awaken public sentiment in this direction?

Dr. Flint—Dear Sir: I see by the two last numbers of the Buffalo Medical Journal that you have undertaken to correct and change the public mind, and so do away with a great moral evil (criminal abortions.) I am glad, for, one that the medical faculty are getting aroused to this great subject, and that they may show its true character and influence, and correct, if possible, the error. It is a great evil, and there must be measures and means advanced to check it, or where will it end?

I will give you the history of a case that occurred to me in my practice only a year ago.

Mrs. W., aet forty, widow woman, with three children, applied at my office for medical aid; said she had been unfortunate, and got caught in a bad scrape, and wished something to produce the desired effect. She was told that it was very dangerous to give such medicine, and that they were very uncertain in their effects, as

no specific medicine was known that would produce this effect without danger. She left the office, and nothing more was heard from her for about two weeks, when I was summoned to her house as soon as I could get there. It was some twelve hours before I arrived, and when I did, I learned a tale that makes my blood almost chill when I think of it. She had procured some drug, the character of which she refused to tell; had taken it and it had the desired effect, *i. e.*, to produce abortion. She told me that she was alone with her children, who were asleep. She took the medicine, and the child was born; that she knew not what to do with it, and for fear that it would cry and awaken the other children she muffled its mouth, got off her bed, walked to the stove, in which there was a brisk fire, removed the griddle or cover, and placed the child upon the burning coals, and there it remained until it was burned to ashes. She said it writhed and tried to cry, and she had to turn away!

To what extent of crime will this debasing practice lead our mothers and our daughters if not stopped? The fœtus was a seven and a half month. The effect of the medicine which she took produced her death some hours after. This was her confession.

I could relate other instances that have occurred in my neighborhood, but they are no more than have occurred to you and to every other medical man.

I will state what I know of some of the "*Royal French Physicians*" who advertise in almost every paper that we pick up, a specific remedy for suppression of the menses, &c. You doubtless have seen an advertisement of Dr. Charles S. Gourander, French Physician, Surgeon and Accoucher, of the celebrated school of Paris, &c. Also, J. B. Bartonie, with an advertisement of like character.

These two eminent physicians are only one person assuming these two names. I am personally acquainted with this eminent humbug and do know that he never read a medical book in his life, never attended a medical school, never heard a medical lecture, and yet he advertised as being a graduate of the Royal College of Paris, (what students she must turn out.) I have seen this man go to the post-office and get from three to fifteen letters at a time directed to him at N. Y., and forwarded to R., and from each of these letters he received one dollar with directions to forward to such and such places his pills with full directions for use.

The most of these letters were from unmarried ladies—at least they were signed Miss So and So. These letters I have both seen and read. The pills he used were Wright's Indian Vegetable. He bought them by the gross, tore off the wrappers and put on his, and forwarded them to different parts of the United States, with directions for use. This will show the imposition practiced upon the people; but I think that his pills may be safer and less hazardous to life than the most of preparations used for this purpose, and by just such quacks as he. Yours, &c., G. H. C.

[*Buffalo Med. Jour.*

Paralysie Generale. By M. H. RANNEY, M.D., Resident Physician of the New York City Lunatic Asylum.

This disease has been but recently discriminated from other forms of paralysis. The attention of the medical profession was first called to it by Esquirol, within the present century. It may have been confounded, perhaps, with the results of appoplexy, ramollissement, tumors, tubercles, &c., of the brain. It is a singular fact, however, that its frequency has greatly increased during the last sixteen years, as will be seen by reference to the various annual reports of the Superintendents of American Hospitals for the insane. In the report of the McLane Asylum, for the year 1844, Dr. Bell remarks, "I have regarded it as a somewhat curious fact, that it is only within the last three years that this disease has been admitted to this institution. As late as my visit to Europe in 1840, it was unknown within our walls; nor, after seeing it so often manifested there, can I recall any case in our register which would at all meet its characteristics, rendering it certain that it was not overlooked. Since that period, however, we have abundant evidence that it is not a form of disease peculiar to other countries."

The recent investigations by Calmeil, Foville, Rodrigues, Falret, and others have thrown much light on its nature and character. The name adopted by Esquirol does not give a correct idea of the disease. There is not usually complete paralysis, but the power of volition is partially lost, so that muscular action is imperfect and unsteady.

The characteristics of this disease are found in the paralysis, and in peculiar mental aberrations. Either the physical or the mental affection may be antecedent in its manifestation.

The first paralytic symptom is an affection of the muscles of the pharynx and larynx, which changes much the tone of voice and produces a difficulty in articulation. There is a peculiar "cracked" husky tone, and a hesitancy between syllables and words like stammering. A slight excitement produces a spasmodic action of the muscles of the face, particularly about the corner of the mouth and eyes. The tongue when protruded is tremulous, and thrown forward by successive efforts resembling the spasmodic action observed in chorea. The face becomes expressionless; as the disease progresses all of these signs become more marked, and a difficulty occurs in locomotion. The patient totters in his gait, and if he attempt to change suddenly his direction, is likely to fall. In falling he makes no apparent effort to recover himself, and his head strikes with equal force as other parts of his body. Deglutition is gradually impeded, and eventually there is a loss of control over the sphincters. In most cases epileptiform convulsions follow at intervals, varying from one week to three months, each of which seem to lessen the vital power of the system, and to increase, temporarily at least, the extent and degree of the paralysis.

The mental changes are marked both in the susceptibility and intellect. The patient is restless constantly moving from place to

place, peevish, fretful, and impatient of contradiction. He is ever discontented with his present condition, although the past and future afford unalloyed happiness. Opposition to his wishes is soon forgotten. Recent events are generally but feebly retained, whilst the past affords to his mind images of unparalleled success, and the future glows with day dreams of great achievements to be performed, or noble actions done. The disease may assume the form of mania, monomania, or dementia. The most prominent and usual characteristic is generally exaltation of the imagination. The belief is permanent, that he excels in everything, and possesses strength, wealth, influence, and intellectual capacity far beyond that of any human being. They who were previously endowed with a brilliant imagination, and had received high mental culture, present visionary schemes of the most attractive character. Their language is well chosen, and their style highly poetical. They project ships on an immense scale, and palaces of pure gold, control kingdoms, and discover the secrets of Providence. Great subjects alone occupy their attention. The following extract, from the register of the New York City Lunatic Asylum, illustrates this phase of the disease. The imagery of the delusions is entirely that of the patient, and his style and language is retained as far as practicable.

"H. H., born in Virginia, aged 32, admitted 1853. After receiving his degree at Yale, he was supplied with an abundance of money, and unrestrained in the gratification of every desire. His funds becoming exhausted, he endeavored to obtain a living by his own exertions, but with indifferent success, on account of the impairment of his mind and health through the influence of his former habits. His system is very feeble, and a large ulcer upon one of his limbs renders him almost helpless.

"The imagination of H. H., naturally active, is morbidly exalted. He believes himself to be the 'Earl of Warwick, the King-Maker,' and adds to the singularity of the delusion, by the conception that he is fourteen feet high, and large in proportion. He wishes to purchase the asylum and all its contents, proposes to bestow the most magnificent presents and the most extensive estates upon the physicians, and signs papers to that effect. Nothing is beyond his reach by reason of its expensiveness; nothing too good for his friends. His clothes are of the finest cloth, lined with the most costly satin, decked with intricate embroidery, and ornamented with buttons of enormous diamonds. For him magnificent pictures adorn the walls of mansions, which the highest architectural skill has reared. The souls of Praxitiles and Canova shine through the marble monuments of their art which fill the corners of his libraries. Through the stained-glass window, shaded by the heavy folds of Genoa velvet, the light falls upon the most rare editions of the works of those men, whose literature is eternal.

"Carpets, the delicacy of whose tints rival those of the summer cloud at sunset, cover the floors of his apartments. Tables inlaid with precious stones, which cause the envy of the brightest stars of heaven, uphold wines sparkling upon the brim of golden goblets, as if anxious to kiss the lips of the drinker, and viands which have

been prepared with the consumate skill of the highest culinary art. Flowers of supernatual beauty, whose delicate perfume angles might use on their spotless garments, fill his conservatories.

"Among the spreading branches of the trees of his pleasant gardens birds of brilliant plumage and unrivalled song pour forth their sweet voices in harmony with murmurs of fountains, whose silver-edged bubbles ripple over pearls and garnets, and whose banks are clothed with the herbage and verdure of the tropics."

Even they who previously possessed but little imaginative power evince now the most lively conceptions. Matters of common occurrence may occupy the attention, but are so vividly and fancifully described as to render it difficult to detect the real nucleus of fact. The exhilaration produced on certain individuals from stimulating drinks bears some resemblance to the expansive ideas in this form of paralysis. These delusions continue until the disease has progressed to a low state of dementia. There is an occasional exception to the general rule of exaltation. In such cases the mind seems depressed and enfeebled from the commencement of the attack, and the paralytic symptoms are very strongly marked.

The presentation of symptoms and the diagnosis being the principal object of this paper, I select a case from Esquirol, in which the prominet characteristics are given. "M. L. D., thirty-eight years of age, had participated in the last campaigns of the empire, and was elevated to the rank of colonel after the restoration; uniting to every physical and intellectual quality all the advantages of a lofty position in society, and a large fortune. He was of the opinion that he had experienced injustice on the part of the government. His self-love was deeply wounded, and after many days of insomnia he gave himself several thrusts with a knife in the region of the heart. He was promptly securrd, and his services were but for a brief period discontinued. From this time he expressed with bitterness his dissatisfaction, but was in no respect less exact in fulfilling his duties as a commanding officer. Two years subsequently he has an attack of cerebral congestion, for which he is largely bled. Two days later he has a second attack, more severe than the first. He remains excited, talks much, is agitated, irritable, and exacting. He does not sleep, and after a third attack a true mania is developed. The delirium is generally attended with agitation and notions of grandeur and fortune. He commits a thousand extravagances, remains almost naked, talks incessantly, cries aloud, orders a thousand things at once, is impatient, and commits strange and imprudent acts, which compromise his life, though he entertains no idea of suicide.

"Several physicians are called in consultation, and the maniacal state of the patient cannot be denied. His age, however, and the brief duration of the disease, offer to the counsellors expectation of a cure. I affirm that the patient will never recover; 1st, because three severe attacks of cerebral congestion had preceded the maniacal state, and that, consequently, there was some degree of cerebral lesion; 2d, because, notwithstanding his excessive loquacity, certain

words are imperfectly pronounced, and because his gait, although lively and active, is uncertain. I added, that active medication would hasten the progress of the disease; that the country, exercise, a severe regimen, and the repeated application of leeches to prevent new congestions, appeared to me to be the only proper course. One of the consulting physicians did not concur with me in my unfavorable prognosis, and proposed certain tentative measures.

"After a month spent in fruitless attempts, we were obliged to renounce all hopes of cure. Paralysis had progressed and dementia was confirmed—the patient retaining incoherent notions of grandeur, which persisted for more than two years. He regarded himself as the possessor of several provinces and kingdoms; distributed palaces, and gave away millions, and commanded also an army of giants. His cavalry was mounted upon horses of gigantic size; he possessed palaces of diamonds, and his stature was 20, 30, and 40 cubits in height. He talked both night and day, now in a low tone, now loudly. He also uttered loud cries. Beset by hallucinations of hearing, he listened to the voices of imaginary beings, and replied to them, boasting of his person, disputing with and even abusing them. He recognized the members of his family, and addressed them with amiability and politeness; but after a brief interval, however, resumed his habits of constant conversation. He was sent to the country."

Paralysie Generale occurs more frequently among males than females; in fact among the latter it is of rare occurrence. No good reason has been assigned for this—the predisposing and exciting causes to which the disease is referred being found in operation in both sexes. At Charenton, of 619 insane (366 men and 253 women) there were 109 cases of general paralysis, (95 males and 14 females). Into the asylum at Halle, in the Tyrol, 257 men and 181 women were admitted, among whom were 28 cases of general paralysis, (22 men, 6 women). In the New York City Lunatic Asylum, of 5,092 (2,391 men, 2,701 women) under treatment within the last eleven years, 85 deaths have occurred (76 males, 9 females) from this disease. It is a disease of adult life, rarely occurring before the age of twenty-five. Those of a sanguine temperament are more liable to an attack, especially if of a full habit, with a tendency to apoplexy. It occurs, to a great extent, in the class called *good livers*, who remain up late at night, and indulge in suppers with a free use of wine, the mind at the same time being actively engaged. Venereal excesses, a free use of mercurials, syphilitic diseases, a hereditary taint of insanity, or scrofula—in a word, everything that tends greatly to deteriorate the blood, impair the constitution, or lessen the vital power of resistance, may act as a predisposing cause. The exciting cause is generally some sudden mental shock—a loss of friends or property, great anxiety in business matters, or it may be an indulgence in very great excesses.

There are various diseases with which it has been and may be confounded. "Ramollissement du cerveau" has some symptoms in common with it; but the continued pain in the head, occasionally

vomiting, rigidity of the flexor muscles of the limbs, and stupidity, instead of exaltation of intellect, seem sufficient to distinguish it from general paralysis. In the last-named disease there is also a softening of the brain, but it is the cortical portion that is particularly affected, and this gives rise, usually, during its progress from irritation to softening, to the peculiar mental symptoms that have already been described.

Cerebral hemorrhage is usually accompanied by paralysis of a hemiplegic character, and its sudden invasion with the ordinary apoplectic symptoms is a distinguishing feature in its diagnosis.

Inflammation of the brain or its membranes, as well as the affections of the spinal cord, might lead to error from superficial examination, but the rapid progress of the one and the paraplegic character of the other, without any peculiar mental aberration would indicate the nature of the disease. Delirium, arising from inflammation, differs essentially from delusions. There is generally a low condition of the system; the mind is not occupied with external objects, but seems to retire within itself, and in a half comatose state is manifested by incoherent mutterings, without ever exhibiting the reasoning power of insanity.

Paralysis caused by mercury, alcohol, or lead, may be distinguished by a careful study of the causes and symptoms, the muscles of the extremities being in these cases at first affected either with numbness, trembling, or a complete paralysis of the extensors.

Morbid growths of the brain, such as tumors, (malignant and non-malignant,) tubercles, &c., present many features in common with general paralysis. The character of the morbid growth can be inferred only from the particular diathesis, or by the external manifestations, the paralytic and mental conditions involved in them depending principally on compression and inflammation, with its sequences. The change occurring in the mental faculties is that of general enfeeblement, presenting eventually the ordinary characteristics of dementia. The last stage of general paralysis closely resembles this, and its discrimination requires a knowledge of the previous history and a careful analysis of the successive order of the paralytic symptoms.

The following is selected from the case book of the New York City Asylum, as an illustration of this error in diagnosis. It had been considered as the effect of a morbid growth in the brain, previous to admission. "C. L. S., æt. 36, by profession an actor, was on the 10th of December, 1856, admitted into the asylum. When admitted, he was found to be completely demented, paralyzed, unable to walk or stand, and with difficulty to swallow. He lingered nine days when the disease terminated in death.

"The following history of the case, communicated by his brother, together with the post-mortem appearances of the brain, indicate the form of the disease of which the patient died to have been *paralysie générale*. His brother states that he had always been a temperate man. Some two years since, in consequence of domestic and busi-

ness troubles, he passed through a period of great mental anxiety and excitement.

"A year ago last October, while in Philadelphia, he exhibited strong symptoms of insanity of a maniacal character, succeeded by a condition of prostration. Soon after recovery of physical health, a change in his character was noticed; he became irritable, impatient of contradiction; at times despondent, and then very sanguine of success in his profession and business. His time, following such recovery, up to April last, was spent in forming business plans and studying the important characters of Shakespeare, in the belief that he was to become a prominent actor, although his friends knew him to be incompetent in this respect from the great impairment his memory had lately suffered. When slightly excited, twitching of the corners of his mouth and tremors of the muscles of his face were noticed; his tongue was protruded with difficulty, and his voice altered and 'cracked' in its tone. All of these symptoms increased in intensity about the beginning of April last, when on the 8th of the month, he had a convulsion of an epileptiform character, as described by his brother, followed by prostration. From this he afterwards gradually improved until August last, when he had another severe convulsion, followed by loss of consciousness. For several hours previous to this last convulsion, it was noticed that his left arm had become paralyzed. He was then taken to a hospital, and for a short time improved so as to be able to walk about the ward, and regained considerable power in the use of his tongue and arm.

"During the four months he remained there, his brother states that he had several convulsive attacks similar to those already mentioned, followed each time by increasing helplessness and greater loss of mental power, until he became reduced to the condition in which he was brought to the Asylum. Autopsy fourteen hours after death: skull a quarter of an inch thick, and of a texture less dense than usual; dura mater and arachnoid closely adhered over summit of cerebrum; arachnoid thickened, and presenting an opaline appearance, with serum between it and pia mater; general appearance of brain, atrophied; the cortical structure somewhat softened and easily scraped with the knife or finger-nail from the white medullary substance; this latter was found to be hardened, of a firm texture, and glossy in appearance; the ventricles were largely distended, and contained ʒiv. of clear serum; the floors of both lateral ones had a feeling of roughness to the touch; the foramen of Monro was large and patulous, easily admitting the end of the little finger; the middle or soft commissure was wasted to a thin ribbon of almost transparent membrane; the pons varolii and medulla oblongata were of less than usual size, and the pituitary gland shrunken, and the upper portion of its peduncle enlarged. The weight of the brain, drained of the serum in its ventricles, was too and a half pounds, which is some ten ounces less than the average given by Solly."

The most common pathological change in *paralysie générale* is a softening of the vesicular neurine of the brain, especially in the anterior portion of the parietal regions. Sometimes the tubular neurine is also involved. Various other changes are occasionally found, such as thickening of the membranes, effusion of serum, induration of the cerebral substances, &c., but with no particular uniformity; and these, in fact, are found in many of the chronic diseases of the brain. The length of time in which the disease has progressed, must necessarily vary the cadaveric phenomena, and if death occur very early, there may be no manifest softening; yet from this it does not follow that it has been in progress, that there is no organic detritus. Either a subjective cause like over excitement of the mind, or an objective one like intemperance, or moral and physical causes combined, may over stimulate the brain, and its continuance result in congestion, from which condition serum may be effused into the primitive cellules, causing irritation that may or may not end in softening. Why softening follows in this form of paralysis, but not in ordinary congestion, is not well settled. It may depend either upon some particular predisposition on the part of the patient, or upon some unknown peculiarity of the disease.

The prognosis is highly unfavorable. Roderigues mentions a few cases of recovery, but by most the disease is considered incurable. Death follows, generally, in from one to three years after the first symptoms appear, but life is occasionally prolonged beyond the last named period. If it occur early in the disease, the termination is usually by epileptiform convulsions; if at a late period, from general exhaustion, or disease of some important organ other than the brain.

The object of this communication being merely to call the attention of the profession to the general characteristics of this form of paralysis, I will not dwell upon the subject of treatment.

M. Roderigues recommends the adoption, at an early stage, of active measures, such as frequent venesection, &c. After the disease is somewhat advanced, he advises the occasional abstraction of blood, in connection with tonics, aromatics, and cold baths, while at a later period he recommends laxatives, and revulsives to the skin. The treatment of M. Roderigues has not been found successful when adopted by others, although he gives a very favorable account of its results.

The observance of general principles of treatment to meet the indication of the symptoms has seemed to be attended with as much benefit as the adoption of any other system. I have seen more temporary good effects follow the use of a seton, or the free application of Ung. Tart. Ant. to the back of the neck, than from anything else in the way of treatment. If at a very early stage the habitual excesses which had partially undermined the system were corrected, and a careful hygienic course pursued, some hopes might then be entertained of a gradual restoration.—*American Med. Monthly.*

Foundling Hospital in Moscow.

From a letter by Bayard Taylor, in the *Tribune*, we extract the following account of the Foundling Hospital in Moscow:

In Russia, the Foundling Hospital is characterized by some peculiar and very interesting features, which deserve to be generally known, as they are intimately connected with one of those tender moral questions our civilization is afraid to handle.

In every general view of Moscow, the eye is struck by an immense quadrangular building, or collection of buildings, on the northern bank of the Moskoa, directly east of the Kremlin. The white front towers high over all the neighboring part of the city, and quite eclipses, in its imposing appearance, every palace, church, military barracks or other public building whatever. It cannot be much less than a thousand feet in length, and at a venture, I should estimate its size at three times that of the Capitol at Washington. The governorship of this institution is only second in importance to that of the city itself, and is always conferred upon a nobleman of distinguished rank and attainments. The importance of the post may be estimated when I state that the annual expenses of the hospital amount to $5,000,000. A portion of the government revenues are set aside for this purpose, in addition to which successive Tzars, as well as private individuals, have richly endowed it. The entire property devoted to the support, maintenance and education of foundlings in Russia is said to amount to the enormous sum of five hundred millions of dollars.

This stupendous institution was founded by Catharine II., immediately after her accession to the throne in 1762. Eight years afterward she established a branch at St. Petersburg, which has now outgrown the parent concern, and is conducted on a still more magnificent scale. The original design appears to have been to furnish an asylum for illegitimate children and destitute orphans. A lying-in hospital was connected with it, so that nothing might be left undone to suppress crime and misery in a humane and charitable way. The plan, however, was soon enlarged so as to embrace *all* children who might be offered, without question or stipulation—the parents naturally giving up their offspring to the service of the government which had reared them. Russia offers herself as midwife, wet nurse, mother and teacher to every new soul for whom there is no place among the homes of her people, and nobly and conscientiously does she discharge her self-imposed duty. She not only takes no life, (capital punishment, I believe, does not exist,) but she saves thousands annually. She, therefore, autocracy as she is, practically carries into effect one of the first articles of the ultra-socialistic code.

Through Col. Claxton's kindness, I obtained permission to visit the Foundling hospital. We were received by the superintendent, a lively, intelligent gentleman, with half a dozen orders at his buttonhole. Before conducting us through the building, he stated that we would see it to less advantage than usual, all the children being in the country for the summer, with the exception of those which

had been received during the last few weeks. There is a large village about thirty versts from Moscow, whose inhabitants devote themselves entirely to the bringing up of these foundlings. We first entered a wing of the building, appropriated to the orphan children of officers. There are 1,200 at present in the institution, but all of them, with the exception of the sucklings, were enjoying their summer holidays in the country. It was the hour for their midday nap, and in the large airy halls lay a hundred and fifty babes, each in its little white cot, covered with curtains of fine gauze. Only one whimpered a little; all the others slept quietly. The apartments were in the highest possible state of neatness, and the nurses, who stood silently, with hands folded on their breasts, bowing as we passed, were also remarkably neat in person.

These children enjoy some privileges over the foundlings and poorer orphans. The boys are taught some practical science or profession, and not unfrequently receive places as officers in the army. The girls receive an excellent education, including music and modern languages, and become teachers or governesses. As the larger children were all absent, I could form no idea of the manner of their instruction, except from an inspection of the school and class rooms, the appearance of which gave a good report. The Superintendents and Teachers are particularly required to watch the signs of any decided talent in the children, and where such appears to develop it in the proper direction. Thus, excellent musicians, actors, painters, engineers, and mechanics of various kinds have been produced, and the poor and nameless children of Russia have risen to wealth and distinction.

On our way to the hospital proper, we passed through the church, which was as cheerful and beautiful a place of devotion as I have seen since leaving the Parthenon. The walls are of scagliola, peach-blossom color, brightened, but not overloaded with golden ornaments. The dome well painted in fresco, rests on pillars of the same material, and the hall altar-screen, though gilded, is not glaring; nor are the Saints abnormal creatures, whose like is not to be found in heaven or on earth. The *prestol* or inmost shrine stands under a dome whose inner side contains a choral circle of lovely blonde-haired angels, floating in a blue, starry skie. All parts of the vast building are most substantially and carefully constructed. The walls are of brick or stone, the floors of marble or glazed tiles in the corridors, and the staircases of iron. The courts inclose garden-plats radiant with flowers. The arrangements for heating and ventilation are admirable. With such care, one would think that a naturally healthy child would be as sure to live as a sound egg to be hatched in the Egyptian ovens.

We passed through hall after hall filled with rows of little white cots, beside each of which stood a nurse, either watching her sleeping charge, or gently rocking it in her arms. Twelve hundred nurses and twelve hundred babies! This is homoculture on a large scale. Not all the plants would thrive; some helpless little ones would perhaps that day give up the unequal struggle, and before men and women are produced from the crop there sown, the number will be

diminished by one-third. The condition in which they arrive, often brought from a long distance in rough weather, accounts for the mortality. When we consider, however, that the deaths both in Moscow and St. Petersburg annually exceed the births, it is evident that the government takes better care of its children than do the parents themselves. Of the babies we saw, seven had been brought in on the day of our visit, up to the time of our arrival, and fourteen the previous day. The nurses were stout, healthy, ugly women, varying from twenty to forty years of age. They all wore the national costume—a dress bordered with scarlet, white apron, and a large fan-shaped head-dress of white and red. In every hall there was a lady-like, intelligent overseeress. In spite of the multitude of babies, there was very little noise, and the most nervous old bachelor might have gone the round without once having his teeth set on edge.

The superintendent then conducted us to the office or agency, on the lower story, where the children are received The number of clerks and desks, and the library of records, showed the extent of the business done. I looked over a report of the operations of the institution from its foundation to the present time. The number of children confided to its care has increased from a few hundred in 1762 to 14,000 in 1857. Since the commencement of this year (Jan. 13, O. S.,) 6,032 have arrived. The entire number received in ninety-six years is 330,000, to which may be added 60,000 more, born in the lying-in hospital during the same period—making 390,000 in all. The Petersburg branch affords still larger returns, so that at present 30,000 children are annually given into the care of the government. A very large proportion of them are the offspring of poor married people, in all parts of the country. As the children may afterward be reclaimed, on certain conditions, and are in any case assured of as fortunate a lot, at least, as would have been theirs at home, the parents are the more easily led to take advantage of this charity. The child is taken without question, and therefore no reliable statistics of the public morality can be obtained from this source.

The office is kept open night and day, and no living child which is offered can be refused. The only question asked is, whether it has been baptized. If not, the ceremony is immediately performed in an adjoining room, by a priest connected with the institution, one of the oldest nurses generally acting as godmother. Its name and number are then entered in the official book; a card containing them and the date of its arrival is attached to its neck, and another given to the mother, so that it may afterward be identified and reclaimed. Very frequently the mother is allowed to become its nurse, in which case she receives pay like the other nurses. After six weeks or two months in the institution it is sent into the country, where it remains until old enough to receive instruction. The regular nurses are paid at the rate of about $50 a year, in addition to their board and lodging. If the parents pay a sum equal to $25 on

the deposition of the infant, they are entitled to have it brought up exclusively within the walls of the institution, where it is more carefully attended to than elsewhere. The payment of $200 procures for it, if a boy, the rank of an officer. The parents are allowed to see their children at stated times, and many of them take advantage of this permission. The greater part, however, live in the provinces, and virtually give up their children to the State; though it is always possible, by consulting the hospital directory, to find where the latter are, and to recover them.

In the lying-in hospital all women are received who apply. They are allowed to enter one month before their confinement, and to remain afterward until their health is entirely restored. Those who wish to be unknown, are concealed by a curtain, which falls across the middle of the bed, so that their faces are never seen. Besides this, no one is allowed to enter the hospital, except the persons actually employed within it. The late Emperor, even, respected its privacy, and at once gave up his desire to enter, on the representations of the Governor. The arrangements are said to be so excellent, that not only poor married woman, but many who are quite above the necessity of such a charity, take advantage of it. In this case, also, the number of children brought forth is no evidence as to the proportion of illegitimate births. It is not obligatory upon the mother to leave her child in the hospital; she may take it with her, if she chooses, but it will of course be received, if offered.

Besides the soldiers, common mechanics and factory girls, which the children of merely ordinary capacity become, the Government has, of late years, established many of them as farmers and colonists on the uncultivated crown lands. They are mated, married, and comfortably settled in villages, where in addition to their agricultural labors, they frequently take charge of a younger generation of foundlings. I have seen some of these villages, where the houses were all neat Swiss cottages, under the projecting eves of which the families sat in the mild evening air, while groups of sprightly children, too nearly of an age to belong to the occupants, sported before them. The people looked happy and prosperous. If there is a patriotic peasantry on earth, they should certainly belong to it. They are, in the fullest sense of the term, children of their country.

The St. Petersburg Hospital, though in the heart of the city, covers, with its dependencies, twenty-eight acres of ground. Upwards of five hundred teachers are employed, many of them on very high salaries. The number of nurses, servants, and other persons employed in the establishment, amounts to upward of five thousand. The boys and girls, both here and in Moscow, are taught separately. The cost of their education, alone, is more than $1,000,000 annually. In a word, Russia spends on her orphans and castaways as much as the entire revenues of Sweden, Norway and Greece.

Diphtheria : Discussion before the Medical Society of London. Oct. 18. Dr. Semple called the attention of the Society to a disease which was exciting very great interest at the present moment—namely, Diptheria. He had been called down to Bagshot to see some cases of the affection in question, but he arrived about an hour after one of the patients had died ; he found that the last fatal case was the third in the same family, the ages of the patients being respectively eight, twelve and fifteen years. They died at intervals of about a week from each other; and while the funeral service was being performed on one of the children, the death of the elder sister, aged fifteen years, occurred. Dr. Semple, however, repaired to the house of the patient, in company with Dr. Blount of Bagshot, and obtained permission to make a post-mortem examination of the body, although to a limited extent. It was to be regretted that very few examinations after death had been obtained in this disease, owing to the prejudices existing in the minds of relatives, especially in the rural districts. However, nearly the whole of the diseased parts were examined, consisting of the tonsils, a part of the tongue and of the pharnyx, the epiglottis, the larnyx, and the trachea. On the whole of these parts the pellicular membrane, which is the characteristic feature of true diphtheria, was developed. It was especially necessary to bear this character in mind, because he (Dr. Semple) had reason to believe that, at the present time, many affections of the throat were confounded together, under the name of diptheria, which had very little relation to that disease—at least in the sense in which the term was used by Bretonnea, Troussea, Guersent, and other French writers. It was especially necessary to exclude the scarlatinal sore throats from the category of diptheria, because scarlatina has no real or necessary connection with the diptheric epidemic. Other cases which were confounded with diphtheria were ulcerated sore throats of various kinds, cancrum oris, and even common tonsillitis. The true distinction existing between diphtheria and the malignant ulceration of the tonsils in scarlatina, was to be found in the circumstance that the pellicular exudation in diphtheria may be readily removed by the handle of the scalpel, leaving the mucous membrane below it, congested indeed, but smooth and entire; whereas, in the malignant ulceration of scarlatina, the substance of the tonsils is actually eaten away and destroyed. The fatality of diptheria was quite appalling. Dr. Blount had attended eight cases of the disease in the vicinity of Bagshot, and every one of them had been fatal. Both the commencement and the termination of the disease were marked by peculiarly treacherous and insidious characters: the symptoms, at first, are so slight, that they are hardly noticed by the patients or their relatives; and when medical advice is at last sought for, the pellicular exudation has generally reached the air passages, when the hopes of recovery are almost extinguished. The termination of the disease is equally insidious, and is often quite unexpected ; for although many patients die with symptoms of well-marked asphyxia, yet others perish suddenly by syncope, while they appear to be going on favorably. Dr. Semple was remarkably struck

with the circumstance that the locality, where these fatal cases occurred, was not one where one might expect, *a priori*, a malignant and fatal form of disease to prevail; for the surrounding country was open and beautiful, the soil dry, and the patients by no means placed in unfavorable hygienic conditions; nor did it seem that the disease attacked ill-fed or puny children, for the girl whose body was examined, was a plump, well-formed person, moderately fat, and with good muscular development. The therapeutical management of this disease was a question of great importance; but, hitherto, all kinds of treatment had been attended with very unsatisfactory results; the best treatment was, unquestionably, the application of strong caustics to the throat, at the very earliest possible period; and the hydrochloric acid, used in a concentrated form, was perhaps the best. This appears to stop the progress of the false membrane into the air passages, and acts somewhat in the same manner as concentrated nitric acid in preventing the progress of phagedænic ulceration. When the false membrane has reached the trachea and bronchi, there is very little hope for the patient. The next question is whether, when this extension has taken place, the operation of tracheotomy—so much extolled and so extensively practised by the French physicians—ought to be resorted to. In the case of the girl at Bagshot, Dr. Semple was prepared to recommend the performance of the operation, if he found the patient alive, and if she were suffering from the symptoms of asphyxia; but the post-mortem examination proved that this proceeding must have been useless, for the false membrane was so extensively spread over all the air passages that it could not have been removed, and it had so little tenacity that it would have broken under the forceps used for extracting it. True diptheria, therefore, was characterized by the presence of the false membrane at the back of the mouth, extending, in the fatal cases, into the air passages, and causing death by obstructing the respiration; and it differed, on the one hand, from those sthenic forms of throat disease which were accompanied by full pulse, and the other ordinary signs of acute inflammation; and, on the other hand, it differed from those low forms of throat-disease which arose from a depressed habit of body, from unclean and unhealthy habitations, and from the complication of scarlatina. The extensive prevalence of diphtheria, at the present day, demanded the attention of the Government; it was sweeping off great numbers of the rural population, both young children and persons verging on puberty; and, from the peculiarly insidious nature of the early symptoms, it was generally neglected until remedial means were of no avail.

Dr. Stavely King doubted the propriety of tracheomoty in this disease. He thought the patient would die of exhaustion under the knife. Many cases of so-called diptheria were merely cases of common throat affection; such as, on the one hand, was low form of angina in scarlet fever, and, on the other, sthenic croupal inflammation. He related some cases of diptheria, which had come under his observation, in which the early symptoms were very obscure. In his opinion the disease was to the respiratory membrane what thrush was to

the intestinal. He believed it had a confervoid origin, and that the effect of the poison, when absorbed, was, in its elimination, to set up a sthenic inflammation simulating croup. Hence his treatment, in the cases referred to, consisted in the employment of powerful counter-irritation, the application of a leech to each side of the trachea, chlorine washes, and the administration of port wine, quinine, and chlorate of potash.

Mr. Streeter thought the disease was essentially allied to croup, and advocated the use of emetics.—*Lancet.*

Medical Notes From the Continent.—Utrecht.

[Under the head of "Medical Notes from the Continent; or, Sketches of the Universities, Hospitals, Lunatic Asylums and Mineral Baths of Holland, Belgium, Germany and Austria," Dr. A. Mercer Adam has given, in late numbers of the *Edinburgh Medical Journal*, some interesting descriptions of the places and institutions alluded to. We copy in full his account of Utrecht, of its celebrated medical school, and of two distinguished Professors resident there.—Eds. *Boston Med. Journal.*]

Leaving behind the indescribable smells of Amsterdam, I steamed on again by rail, through flat watery meadows—studded with sleek kine, such as one sees in the pictures of Cuyp or Ruysdael, and fenced with broad ditches in lieu of hedges—and past pleasant Dutch homesteads, which are dotted over the landscape—until the train reached the fine old town of Utrecht.

As a school of medicine, Utrecht unquestionably stands highest among the Dutch Universities, and the celebrity of several of its living professors has attracted to it much of the attention of the scientific world. The names of Schroeder Van der Kolk, Donders, Harting and Mulder, are very familiar to every student of modern medicine, and the influence of their views has extended into all lands.

The University of Utrecht is a plain building, which was founded in 1636. It contains a fine hall, which, at the time of my visit, was in daily use for medical and other graduations. At one end of it is a high gallery, wherin musicians perform during the ceremonies of the graduations, which is gaily bedecked with flags, swords, spears and drums—trophies of the gallant part which was played by the alumni of this college, during the struggle for independence, at the time when Holland was separated from Belgium in 1830, when the students of Utrecht, and of the other Dutch universities, patriotically enrolled themselves in corps, and fought most valiantly for the defense of their country. Other banners, bearing the arms of Dutch cities, &c., adorn the walls; and high above them all flames the emblem of the University itself—a burning sun, with the motto, "Sol Justitiæ illustra nos." There are about 400 students, of whom

70 are medical. Each medical class costs about £2 10s. for the session, and the professors, in addition to these fees, receive about £250 each per annum from the Dutch government. In connection with the University, there is a very good anatomical museum, chiefly remarkable for possessing a large collection of well executed wax models. The physiological laboratory of Professor Donders is also in the University. It is fitted up with microscopes and other scientific apparatus; among these I observed the most interesting instrument called the opthalmotrope of Ruete, which attracted much notice when it was exhibited last year at the Opthalmic Congress at Bonn. It consists of a model of the eye, capable of moving exactly as the natural organ, and having delicately arranged silken cords attached to it behind, which acts as the muscles of the ball. By means of a graduated scale, and some highly ingenious mechanism, one can see at once, by the lengthening or shortening of each cord, what muscles act in producing every movement of the eye, and to what extent, comparatively, each of them operates in these processes. The saloons containing Professor Harting's admirable microscopical collection, immediately adjoin Donder's laboratory. In another part of the town, Mulder, the Professor of Chemistry, has a splendid laboratory, which was expressly built for him.

Few living physiologists have a wider spread reputation than Shroeder Van der Kolk, the Professor of Anatomy in Utrecht. Though now an elderly man, he still retains all the enthusiasm of youth for the prosecution of physiological science; and when he is talking of his experiments or speculations, he warms with the subject, his manner becomes very energetic, and his face brightens up into a pleasant smile. In appearance, he is a man of about 60 or 65 years—of middle size, with iron-gray hair, and a slight stoop, from long study and bending over microscopes. I spent a very pleasant forenoon with him, seeing all his pathological and physiological preparations, about which he discoursed to me most enthusiastically in German. He showed me some finely injected preparations, to illustrate his theory of the non-existence of veins and nerves in the centre of carcinomatous growths—the injection being seen to traverse only the arterial vessels in a section of such a tumor. The pain attending the disease is attributable, he thinks, to the cancer cells entering and destroying the substance of the nerves in the surrounding tissues. We talked a good deal of the celebrated discussion about cancer, which occurred two years ago in the *Academie de Medecine* of Paris, and he remarked that, whatever may be said to the contrary, the microscopical diagnosis of cancer is not to be sneered at as an impossibility. He thinks, however, that in making a histological diagnosis of carcinoma, we should look for the cancer cells in the tissues immediately adjoining as well as in the suspected growth itself. Of Professor Hughes Bennett's Researches into Cancer, he spoke in terms of unqualified commendation; and, in common with all the continental physicians with whom I have conversed, he entertains the highest admiration of the efforts which have been made by Dr. Bennett to establish in England an improved system of medicine—

founded on a scientific rational basis, and in which it is sought to reconcile correct diagnosis and successful treatment with the most advanced views of modern physiology and pathology. And all honor, say I, to such men as Van der Kolk, Donders, Kolliker, Virchow, Claud Bernard, Hughes, Bennett, and others, for the impetus they have given to the culture of rational medicine. Although we may be unable, as yet, to deduce from *all* their investigations, theories of disease or modes of treatment superior to those which we at present possess, still there cannot exist a doubt that, *eventually*, all scientific medicine must be established on a rational basis of improved systems of physiology and pathology. "Without a rational basis," says an eminent writer, "the physician is only a bungler; and without a thorough knowledge of the empirical part of science, he deprives himself of many useful weapons for combating disease."* The wise physician will always try to adopt for his practice, methods which are at once scientific and successful, basing all his treatment upon the sound foundation of rational medicine; he will ever eagerly hail all that is *true*, even though it may wear the dress of novelty, and may on that account be condemned by professional conservatism as unworthy of acceptance; but, at the same time he will never lose sight of the "good old paths," or forget that practical knowledge, which has been gained by the accumulated experience of the wise and good men of the past. And thus will the scientific physician try to combine, in his treatment, all that is trustworthy and valuable in rational medicine and in empiricism; while he who neglects to do so, reduces medicine to the level of a trade, and fails in discharging that duty, which Bacon has well observed "every man owes to his profession." For truly in the words of the German poet:—

> "Das sind die Weissen
> Die durch Irrthum zu Wahrheit reisen;
> Die bei Irrthum verharren,
> Das sind die Narren."†—*Ruckert.*

The influence which the nerves exercise on the inflammation process has long attracted the attention of physiologists. Some years ago Van der Kolk divided the nerves in the limb of a rabbit on one side, and afterward fractured the bones of this, and also those of the sound limb. He found that osseous union occurred normally at the site of the fracture in the sound limb, but that in the one whose nerves were divided, fungous degeneration of the bone occurred at the spot of the lesion. The preparations of this experiment he showed to me. Later researches have been directed to the same subject; and ever since Ludwig pointed out the influence which excitation of the nerves exercises upon glandular secretions,

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* "Ohne rationelle Basis ist der Artzt ein Pfuscher. Aber ohne durchgrieft ende Kenntneiss des empirishen Theils der Wissenchaft beraubt er sich selbsmancher nutzlichen Waffe gegeu die Krankheit."—*Canstatt.*

† They are Wise, who travel through Error to Truth—but they are Fools, who ever cling to Error.

physiologists have been trying to discover whether inflammatory exudations might not also be dependent upon the influence of the nerve fibres in other tissues. Thus Spiess (*Zur lehre de Entzundung*, 1854), conjectures that by the influence of the nerves in the walls of the blood vessels, the exudation of serum is occasioned in inflammation. And ever since Bernard made the important discovery, that division of the sympathetic nerve in the neck is followed by paralysis of the vessels of the head, numerous investigators, such as Brown-Saquard, Budge, Donders, Kussmaul, &c., have been engaged in ascertaining the influence which the nerves exercise over the circulation. Some very important experiments, to determine the influence of the nerves on inflammation, have recently been made in Utrecht, by Dr. Snellen, the assistant of Prof. Donders, who informed me of all his results, some of which I may mention. After numerous carefully performed experiments on the ears and limbs of rabbits, he found that irritation of the sensory nerves of a part is followed by increased reflex action of the nerves supplying the vessels of that region, occasioning spastic contractions of the walls of the vessels. This condition of spastic contraction is afterward succeeded by one of dilatation, caused by paralysis of the walls of the vessels. He looks upon the nerves supplying the vessels as only governing the contractions of their walls, and as only influencing the processes of absorption and exudation, by diminishing or enlarging the calibre of the tubes. He found that division of the sensory nerves of a part did not perceptibly influence the course of an inflammatory process established there artificially; but that division of the fibres of the vaso-motory or sympathetic nerves of the part, although it did not materially alter the course of the inflammation, greatly promoted the absorption of exudation, and consequently shortened its duration. He looks upon this increased facility of absorption as owing to the expansion and consequent thinning of the walls of the vessels, occurring during the state of congestion which follows the paralysis of the walls, consequent on the division of the nerves. Another important result of Dr. Snellen's researches, is more accurate information as to the influence of the trigeminus nerve on the eye. It is well known, that when this nerve is diseased, or artificially divided, we have opacity of the cornea, which in most cases goes on to keratitis, with perforations or atrophy of the eye. Valentin, Longet, Budge, Schiff, Graefe, and others, have experimented concerning this, and they have all been of opinion that the inflammation was due to the trophic influence of the Gasserian ganglion; while Axmann has pointed to this condition as a proof of the truth of his theory, that the nourishment of the tissues is dependent on the ganglio-spinal nerves. But Snellen has successfully demonstrated, that if the eye, deprived of feeling by section of the trigeminus, be very carefully preserved from all *external* sources of irritation which might excite inflammation no keratitis will occur; hence he argues, that the keratitis following section of this nerve is always traumatic, and dependent on inflam-

mation excited by external injuries received by the insensible cornea, rather than on any trophic influence of the Gasserian ganglion.

I have already alluded to Schroeder Van der Kolk's new views concerning the pathology of epilepsy. He considers that epileptics are divisible into two classes, viz. (*a*) those who bite the tongue during the attack, and (*b*) those who seldom or never do this. Now he has found that, in the first class, the capillary vessels of the corpus olivarium are widened in the course of the hypoglossal nerve; and that, in the second, they are enlarged in the track of the vagus, which may account for more labored respiration in those who do not bite the tongue. The walls of the enlarged vessels become thickened, exudation occurs, together with softening of the substance of the olivary body, so that he regards epilepsy as a reflex action from the ganglionic cells of the medulla oblongata. To illustrate this, I give the measurements of the capillaries which the Professor told me he had found in (A) those cases where the tongue is bitten, and in others (B) where this does not take place.

AVERAGE WIDTH OF CAPILLARIES.

	In track of Hypoglossus.	In Corpora Olivaria.	In Raphe.	In Vagus Track.
A.—In tongue biters...	0.306 m.m.	0.315 m.m.	0.355 m.m.	0.237 m.m.
B.—In non-biters.....	0.210 "	0.217 "	0.300 "	0.348 "
Difference	⋈0.96 A.	⋈0.098 A.	⋈0.055 A.	⋈0.111 B.

Such are Professor Van der Kolk's views of the pathology of epilepsy; but he does not offer them dogmatically, and himself admits that the question needs much patient inquiry to enable us to decide with certainty on the point. Meanwhile let me take this opportunity of directing the attention of English physicians to the subject, in order that they may repeat the investigations of this eminent Dutch physiologist.

I have said that Van der Kolk, in his mellow age, has the pleasure of knowing that ere he dies his merits are acknowledged, and his fame European. It is Professor Donders, however, who is now the man of most hope and promise in Utrecht; and to whom, consequently, most of public attention is directed. Like Simpson, Scanzoni, and many other eminent men, he has earned a wide reputation while yet comparatively young; and his skill as an occulist attracts thousands of patients yearly to Utrecht, to be under his care. Professor Donders is about 40 years old—rather tall, well built, and of very dark complexion; he has a quick piercing black eye, which seems at once to get at the root of a matter, and he has a frank manner, and a winning smile, which irresistibly inspire complete confidence in his skill. He has given an immense stimulus to physi-

ology, by his unwearied labors; and his great enthusiasm, and his invariable courtesy, have rendered him a great favorite with the Utrecht students. The medical literature af Holland is under deep obligations to him; for he was not only one of the principal supports of the *Nederlandisch Lancet*, during the existence of that periodical, but, since its decease, he and an Amsterdam physician have commenced a new medical periodical, in which henceforth the contributions of the Dutch medical men will be published in German instead of Dutch, as being a more generally understood language. I subjoin its title in a foot-note, for the benefit of those who may feel interested in the matter.*

I remained in Utrecht for some time, to see as much as possible of Donder's practice in diseases of the eye; and I was shown every kindness by him, being taken to see operations, &c., among his private patients, and being admitted at all times to his opthalmic hospital. I have never seen a better operator than Donders in cases of cataract and artificial pupil, and his diagnosis in eye affections is peculiarly rapid and correct. In most cases of interest, as in glaucoma, &c., he uses Helmholtz's eye speculum in making a diagnosis.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Diseases of the Urinary Organs. A Compendium of their Diagnosis, Pathology, and Treatment. By WILLIAM WALLACE MORLAND, M.D., Fellow of the Massachusetts Medical Society, Member of the Boston Society for Medical Improvement, etc., etc. With Illustrations. Philadelphia: Blanchard & Lea, 1858. (For sale by Riley & Co.)

The volume before us is mainly composed of the substance of two Essays delivered by the Author before the Boylston Medical Society, and to which prizes were awarded. The questions proposed were such as to render it necessary to examine the entire subject of Urinary Pathology; and hence the Author thought that with a little more labor he could get up a Hand-book for that part of the profession whose leisure will not allow them an extended examination of authors.

The Contents embrace *Two Parts, and an Appendix:*

Part I. DIAGNOSIS. General Considerations. Affections of the Supra-Renal Capsules; Diseases of the Kidneys; Diseases of the Uretus; Diseases of the Bladder; Diseases of the Urethra.

* Archiv. fur die Hollandischen Beitrage zur Natur und Heilkunde, hereaus gegeben von Donders in Utrecht und Berlin im Amsterdam.

Part II. PATHOLOGY AND TREATMENT. General Considerations. Affections of the Supra-Renal Capsules; Diseases of the Kidneys; Diseases of the Uretus; Diseases of the Bladder; Diseases of the Urethra.

The chapter on the Supra-Renal Capsules, their diseases, etc., will convey to the reader a very good idea of the value of the work.

So little has been known of the physiology of these organs, that their diseases have hitherto received but little attention, and it is only of late that any symptoms have been referred to them. For a long time they have been regarded as being in some way concerned in fœtal life; for at the second month of embryonic existence they are larger and heavier than the kidneys. We are not certain, however, that their early fœtal development is evidence that they have any particular function adapted to this period. The small bones of the ear are perfect, or nearly so, at birth, the only portion of the osseous tissues that is in this condition. The relation, however, between this circumstance and the physiology of fœtal existence, is not very apparent.

In the adult the supra-renal capsules are found to be small, yellowish flattened bodies, surmounting the kidneys, and inclining inwards towards the vertebral column. They differ in form, the *right* being three cornered in shape—the left semi-lunar. The right adheres to the under surface of the liver—the left touches the pancreas. Both of them are in close relation to the under surface of the diaphragm opposite the tenth dorsal vertebra. Kolliger thinks they are nearly related to the blood-vascular glands in structure. They are very numerously supplied with blood-vessels, not less than twenty small arteries entering their substance.

It is supposed that the supra-renal capsules are wholly independent of the kidneys, as is proved by the fact that they are found when these latter organs are absent. Rokatansky has observed a congenital union, one tunic investing both the kidneys and capsule.

We extract the following from the work on the *Special* Lesions of the Supra-Renal Capsules:

"III. SPECIAL LESIONS OF THE SUPRA-RENAL CAPSULES.

"Hæmorrhage into the substance of these bodies is not uncommon; as might be inferred from the great vascularity of their medullary portion. The extravasated blood distends the capsule more or less, and is changed in its composition according to the

lapse of time since its effusion. The cortical substance is found pale and atrophied, and finally becomes of fibrous consistence. Suppuration and induration, as results of inflammation, are observed. Andral found the capsules changed into 'purulent pouches' in the new-born child and in the fœtus. Adhesion to the kidneys is a frequent result from inflammatory action in the contiguous surfaces.

"Tubercular and cancerous degeneration are often found in the supra-renal bodies; cancer being more often secondary than tubercle. The lymphatic glands are commonly affected in these cases. Baillie pronounced them to be subject to tuberculous enlargement (scrofulous?) Tubercle, when found, is usually in large masses; it sometimes melts down into pus, and is found inclosed in a callous sac, or is changed into a chalky substance, surrounded by a fibroid tissue in which no trace of the healty structure of the organ remains.

"A case of intra-cerebral tumour is reported by Dr. E. R. Peaslee, in the *New York Medical Times*, March, 1856; in which both supra-renal capsules were thickened, hardened and enlarged, with tuberculous deposits; the kidneys both healthy. The patient was a coloured person, so that the bronzing of the skin now attracting so much attention, as a presumed sign of renal capsular disease, could not be remarked. The fact of coexistent cerebral disorder may be noticed in view of the prevalent idea of the physiological connection of the supra-renal bodies with the nervous system. Cancerous disease of the organs would in this case have been more naturally expected.

"Medullary carcinoma is the most usual form of cancer observed in the renal capsules, and the organs are greatly enlarged by the diseased deposit. By extension, or simultaneously, the neighbouring glands, and the kidneys, are affected. Hæmorrhage is prone to occur in the cancerous mass, and the latter breaks down into a 'chocolate-coloured pulp.'

"Encysted disease and ossification have been observed in the supra-renal capsules. There are specimens illustrative of these forms of alteration in the Cabinet of the Boston Society, already referred to:—No. 595 shows ossification, which is referred to previous tubercular diseases; specimens of this combination having been exhibited to the society. In the instance last referred to, the lungs and bronchial glands are noted as "perfectly healthy." (*Catalogue.*) Specimen 596 is 'a large encysted tumor of the left

renal capsule;' the patient 40 years old, and died of erysipelas after the removal of a cancerous breast. A tumour in the left hypochondrium was noticed by her ten months before death; this was always painless; no special symptoms are mentioned; no discolouration of the skin (bronzing) is recorded. On dissection, the tumour was found closely adherent to the left kidney, which was healthy. The cyst was round; of the size of the two fists; of a dense, white, fibro-cellular structure. Within its cavity was "a soft, curdy substance, of a dirty grayish or brownish colour; also about ten ounces of watery fluid." The inner surface of the sac was smooth and regular for the most part, but now and then yellowish and coriaceous, with a few patches of white chalky deposit. The left extremity of the pancreas and a portion of the colon adhered to the tumour. No malignant disease in any of the organs.

"IV. BRONZING OF THE SKIN AS INDICATIVE OF DISEASE OF THE SUPRA-RENAL CAPSULES.

"A new importance invests these organs, in consequence of the late elaborate researches of Dr. Thomas Addison, of London. In a beautifully illustrated quarto of forty-three pages, he gives the results of his hospital observation. To the eleven cases collected by him, Mr. Jonathan Hutchinson has added others from various authorities, purporting to illustrate the views of Addison. According to the latter observer, the chief diagnostic mark of disease in the supra-renal capsules is "a peculiar browning or bronzing of the skin." This, it seems, may be present, whatever be the diseased condition of the capsules—as cancer, tubercle, or abscess—so that, as yet, we have only a *general* pathological clue, the new conditions being accepted.

"A gradually increasing debility accompanies the colouration of the skin. There seems no obvious cause for this; and there is not that amount of emaciation which attaches to affections particularly characterized by debility. Death, it is said, is the almost invariable result in these cases; and it supervenes rapidly, as a general thing. In default of that degree of emaciation usually observed in tubercular and cancerous degeneration, we shou'd be unlikely to suspect either, especially when there are no manifestations elsewhere of such disease. Although an evident cachexia exists, the symptoms are not sufficiently distinctive to enable us to pronounce upon the exis-

tence of either affection in the supra-renal bodies. The number of cases hitherto noted, although comparatively small, is yet too considerable not to be admitted as justifying, to a great extent, the conclusion that disease of the supra-renal capsules exists whenever the true 'bronzed skin' is observed. If succeeding reports continue fully to confirm the deductions derived from the original ones, we may soon be in possession of a new pathological fact.

"The aspect and history of a patient with 'bronzed skin disease' may furnish more or less precise information respecting the character of the suspected lesion. If the scrofulous or tuberculous diathesis prevail, we may thus gain a hint; and the same is true of other constitutional peculiarities or affections, to which, perhaps, the patient is hereditarily predisposed. Ignorant as we still are of the precise physiology of these organs, and divided as are the opinions of anatomists upon their healthy structure, their pathological conditions must long remain imperfectly understood. An extended series of observations is requisite before fully reliable conclusions can be formed. Since Dr. Addison's researches, it is stated that during the past two years, out of five hundred necroscopic examinations made at Guy's Hospital, under the observation of Drs. Wilks and Habershon, only two cases have been met with where the renal capsules were found diseased, in which the diagnosis was not made out during life. One of these failures was in a patient who died of cancerous disease, and, in him, "a dingy hue" of the face was noted.

"It has been seen that Bergmann and Kolliker attribute to these organs a closer connection with the nervous system than Rokitansky and others allow. Mr. Hutchinson remarks, that the very liberal supply of nerves received by the supra renal organs leads to the conjecture that they are functionally very closely associated with the sympathetic system. The want of decided emaciation in the bronzed skin cases (there being rather a 'flabbiness' of tissue, but a 'bulkiness' of frame) hardly justifies a conclusion that they have any close relation with lesions of nutrition. Before any positive positions can be taken, many points remain to be determined. Amongst others, it should be ascertained how frequently the capsules are affected, without coexistent bronzing of the skin. Such cases have already been reported. In a case given by Dr. Bulkley (*N. Y. Med. Times and Gazette*, April 1856,) and which he now supposes similar to those related by Addison, the kidneys were

normal in structure, although only about one-half the usual size. No examination of the renal capsules was made; but it is reasonable to infer their freedom from disease, because, had it been at all marked, it would probably have arrested attention, during the inspection of the kidneys. A more positive case is that recorded by Dr. Peacock (*London Med. Times and Gazette*, January, 1856,) where bronzing of the skin, associated with great debility, was unaccompanied by any disease whatever, in either the supra-renal capsules or the kidneys. Softening of the *medulla oblongata*, and a calcerous deposit in its substance, sufficiently accounted for death.

"The *Association Medical Journal* for January 26, 1856, has an account of a case of bronzing of the skin over the whole body, excepting the palms of the hands: all the viscera were found healty, save that the gall-bladder was greatly distended; with obliteration of the *ductus communis*, the hepatic duct being pervious. The reporter of the case refers to four instances of 'bronze discolouration' in very marked degree—the malady with which the patients suffered being styled 'black jaundice.'

"As has been well remarked, some standard for the peculiar hue associated with renal capsular disease, must be adopted, or innumerable errors may be committed; various changes in the colour of the skin being confounded with the Addisonian bronze.

"That 'peculiar, brownish, earthy hue so well known to characterize advanced cases of malarial cachexia,' and the alteration produced by the internal use of the nitrate of silver, are mentioned as possibly likely to mislead. The change arising from the latter source is but infrequently noticed, and is hardly a bronzed, but rather a leaden colour.

"The following facts are presented by Mr. Hutchinson as derived from an analysis of his reported cases: Out of twenty-seven cases of 'bronzing' tabulated, both renal capsules were found destroyed by chronic disease in *twelve;* and in all these the peculiar colour of the skin was very marked, whilst the debility also existed, which is another characteristic of the affection. In seven cases where there was no *post-mortem* examination, presumptive evidence of the existence of lesion was very strong. In one patient (then living,) the symptoms corresponded so closely to those observed in the cases ratified by necroscopy, that it was considered an undoubted instance of irremediable renal capsule disease. In another patient, both capsules were found affected with recent suppuration, but only

'a yellowish-brown' tint was observed during life upon the skin; it was supposed that the disease had not lasted long enough to produce the deeper shade. In four cases of disease of one capsule, the bronzing, although decided, was much less marked than when both were affected; this fact is regarded as confirmatory of Dr. Addison's opinions. The intensity of discolouration has thus far been found to be in proportion to the amount of structural injury, and to the length of time it has existed. Out of twenty-eight cases (one having been reported since the construction of the table,) twenty-five supply us with more or less positive evidence in favour of the new theory. In certain of the apparently 'exceptional cases,' an explanation of sufficient force may be offered. Thus, Mr. Hutchinson remarks that, in a case where recovery took place, the 'dirty-brown tinge' of the skin disappeared. He argues that here no true pigmentary change had been established; the disease might have been of hepatic origin; the discolouration came on suddenly, whereas it is usually gradual in its accession, often requiring several months for its full development. In another instance, a few nodules of cancerous degeneration were found in both the supra-renal capsules; there had been no discolouration of the skin. Possibly, the very partial invasion of the disease may account for the non-production of the morbid hue, it being remembered that the depth of the latter has hitherto borne a strict relation to the amount of structural injury.

"Case No. 21, from the table already referred to, is set down as perhaps more truly 'exceptional' than any. This is the one reported by Dr. Peacock. A girl of fourteen years complained of lassitude, and had slight cough; the complexion was 'muddy,' of a brownish hue, observed to be deepest on the face, arms, and shoulders; there was no 'mottling' of the skin, which, in the best marked cases, is very distinctive, the bronze *patches* having enabled Dr. Addison in one instance to predict speedy dissolution when no other alarming symptoms existed. A chalky concretion was found in the spinal marrow, and, as doubts were expressed during life as to this being an example of true bronzed skin, it is fair to consider this case as not proving anything, and it should be thrown out of the category. The supra-renal capsules were reported free from disease.

"Having thus assembled the testimony derived from this interesting series of cases, the following *rèsumè* of symptoms is subjoined,

as tending to throw light upon the pathological conditions. The change of colour of the skin is mainly a diagnostic element; it awakens our suspicions, and thus far, when decided, has been indisputable. This pigmentary change has its places of election, and its peculiar forms. Beginning upon the parts most exposed to sun and friction, in irregular patches, it extends, and is more marked in certain localities than in others. The neck, the backs of the hands, the front aspect of the thighs, and the arms, are most frequently affected. Wherever pigment is naturally abundant, the colour is most marked; thus, around the nipple it is deep, while the palms of the hands and the matrices of the nails are nearly or quite unaffected. This tendency is regarded as confirmatory of the idea that the change is really a deposit of pigment. (Hutchinson.) The continuance of the pearly-white of the conjunctiva is differentially diagnostic with a jaundiced condition.

"A very interesting case is reported in the *London Lancet* by R. H. Goolden, M. D., (September 12th, 1857,) where no bronzing of the skin was observed, yet extensive disease of the supra-renal capsules was discovered *post-mortem*. The patient was a surgeon, forty-six years of age, and formerly a pupil of Dr. Bright, who, with Dr Rees, saw him in consultation during this, his last illness. The most marked symptoms were extreme anæmia and gradual loss of strength. 'The right rectus muscle was firmly contracted, giving the alarm of mischief below, and in contrast with the left, which was soft and yielding.'

"Every organ was found healthy except the capsules. 'The body was extraordinarily anæmic. * * * The right supra-renal capsule presented the appearance of a large flaccid bag collapsed; the vein and the artery were seen entering the viscus. On opening it, there was presented a large cavity lined with chocolate-coloured, granular matter; no medullary substance, and the cuticle very thin and gray. The left capsule was smaller, containing two separate and distinct cavities, the upper of which presented the same appearance as that of the right capsule; the left contained some medullary substance, but neither of the cavities contained any fluid.' Tonics, with a good diet and country air, benefited him most; and 'he was always better after his meals.'

"In connection with the above report, it may here be remarked that *congenital absence* of the supra-renal bodies has been noted, as has been previously mentioned (page 136.) A case is reported in

the *Gazette des Hôpitaux*, from M. Antonine de Martini. There was fusion of the two kidneys also, and the renal body was found lying in front of the promontory of the sacrum. 'The patient's skin was white; he was forty years old, and died of chest-disease; he had strength enough to continue his labour as a cabinent maker, was married, and the father of three sons.' (*Boston Medical and Surgical Journal*, May 21, 1857.) This is only a negative fact, so far as non-bronzing of the skin goes, and is also very exceptional. Were there many instances, however, we suppose they would tend to disprove the assumption that the renal-capsules are 'pigment destroyers,' as advanced by M. Sèquard. The extirpation of the capsules, however, without results, as lately practised by M. Philipeaux, would, in a large aggregate of cases, be deemed of more weight in evidence.

As a converse case to that given in the first of the above paragraphs, we may add that Dr. Hodges showed the skin of an elderly man (a dissecting-room subject,) at the meeting of the Boston Society for Medical Improvement, December 14, 1857. There was very marked bronzing nearly all over the body, and the mottled form of it, as figured by Addison, was very distinct in the portion of integument exhibited.

"There was no perceptible disease of the supra-renal capsules, but they were much *smaller* than natural. No special history of the subject could be learned. The other organs were all healthy. The man was a pauper, seventy-five years old, had been esteemed insane, and died suddenly.

"At the meeting of the same society holden December 28th, Dr. Hodges exhibited the integument from the scrotum, portions of the peritoneum, and the supra-renal capsules, from another dissecting-room subject. The discolouration of the skin was similar to that of the specimen previously shown by Dr. H. as giving the idea of the *melasma Addisonii*. The change was most marked about the genitals. The subject, although considered an old man at the institution where he died, had no characteristics of old age save gray hair and baldness. His teeth were sound, his skin smooth, and his muscles well developed. Death was reported 'to have resulted from old age and debility.' No evident disease.

"On examination, the viscera were found sufficiently natural, and the supra-renal capsules healthy. The discolouration of the

serous surfaces, figured by Addison, was well shown upon the peritoneum; the mesentery, appendices, apiploicæ of the sigmoid flexure, and some parts of the peritoneum covering the anterior wall of the abdomen, being well sprinkled with the black specks not unlike 'fly-blows.' (*Boston Med. and Surg. Journal*, Feb. 4, 1858, p. 20).

"M. Brown-Sèquard has lately made some important experiments relating to the physiology and pathology of the supra-renal capsules. He finds that when they are removed from a living animal, a remarkable change occurs in the blood, and death soon follows. To any objection that the experiment, by its seriousness, causes death, it may be replied that much more severe ones are performed upon animals by this distinguished physiologist with conservation of life; and that complete recovery occurs if experiments be not continued upon the same animals. The circulatory change referred to consists in *an accumulation of pigment in the blood*, and in the production of a peculiar form of crystals, not offering the chemical reactions of hæmatoidine. Dr. Sèquard advances the hypothesis that the function of the supra-renal capsules is to prevent the deposition of pigment in the blood. He believes that he has isolated a substance from the blood, which, were these organs absent or inefficient, would be converted into pigment. If very largely furnished, the organs, even if healthy, might not be able to destroy it all. He refers to the fact, revealed by the microscope, that the colouring matter in Addison's cases is identical with that beneath the skin of the African. The blood, too, in the 'bronzed skin' affection contains pigment-cells, pigment-granules, held in a peculiar substance, and the crystals already referred to. On these grounds, M. Sèquard thinks the supra-renal bodies may be considered *destroyers of pigment*. The crystals have been sometimes observed by him so large so as to obstruct certain of the smaller vessels, even becoming impacted in them. Thus the circulation would be seriously impeded, and that the nervous system would be gravely affected, is another of this observer's deductions.

"There are but few discolourations of the skin, arising from disease, with which the true bronzing could be confounded. The brownish hue caused by chronic jaundice is not likely to be mistaken for one which 'strikingly resembles the colour of a bronzed statue from which the gloss has been rubbed off.' Moreover, the *conjunctive* and ungual *matrices* would be coloured in the hepatic affection,

but clear in the bronzed skin cases; the discolouration in the former would be diffused; one of the chief characteristics of the latter is the *patched* and *mottled* form it assumes. Browning from the sun's rays is ineffectual upon parts protected by the clothing; the spots of *pityriasis versicolar* often have a great similarity to the bronzed skin; 'their limitation to the abdomen and chest, their defined outline, their furfuraceous surface, the slight itching which attends them, their contagious character, and, above all, the microscopic examination of the cuticle,' are sufficiently distinctive.

"The muddy hue caused by certain *cachexiæ* is more equally diffused than the bronzing, and it seldom closely enough assimilates the latter to deceive. Mr. Hutchinson, however, thinks it just possible that in two of the tabulated cases this error may have been committed.

"The excessive *debility* remarked is a very striking symptom. In connection with the nearly constant freedom from marked emaciation, it has a special value. There is an utter prostration of body and mind, and, often, death seems imminent from sheer exhaustion; there being no tendency to thoracic disease. This state of things is noticed, with but one or two exceptions, in all the cases recorded. Although never extreme, there has been, in the majority of instances, loss of flesh; but there is a *flabbiness*, rather than an actual wasting. Anæmia is nearly always remarked. The pallor of the unbronzed portions of the skin is extreme; the muscles are soft; the conjunctivæ pearly; the blood, examined microscopically in two cases, was found 'loaded with white corpuscles.' To this impoverishment of the blood, the weakness, breathlessness on effort, and feeble action of the heart are doubtless correctly attributed; as also may be the irritability of the stomach. The *pulse* has been characterized by 'extreme softness and compressibility;' no increase of its frequency is noted. The *tongue* has not manifested other conditions than such as are usual in any illness where debility is the prominent symptom. Just before death, the stomach becomes very irritable; anorexia, nausea, vomiting, pain and sense of sinking at the epigastrium, are spoken of. The state commonly called 'bilious' has been noticed. Costiveness is the rule; few patients have had diarrhœa. The *urine* has not, thus far, been found abnormal in any important degree. Lumbar pain was occasionally noticed, but in two such instances there was coexistent disease of the vertebræ, to which it might very properly be referred; and no

reliable deduction can be drawn from its presence in the others. The cerebro-spinal functions were several times disturbed. Epileptiform convulsions in three persons; failure of memory, and remarkable change of temper, in one; and in another, numbness of the fingers, legs, and tip of the tongue, were some of the manifestations. One patient had tic douloureux. At the Brighton Hospital, a peculiar odour was exhaled from the body in two cases; in one, for some weeks, in the other for a few days only, before death. This has not been observed in other cases, and cannot be considered distinctive.

Death has occurred chiefly by exhaustion; sometimes a peculiar collapse has preceded, for a while, the fatal event, without any assignable cause. Once this phenomenon was so sudden and extreme, that poisoning was suspected.

"With reference to the theory of the disease, and implicating the function of the supra-renal bodies, Mr. Hutchinson remarked that, "supposing them to exercise a presiding influence over the functional efficiency of some of the viscera of the abdomen, it is easy to see how fatal lesions of health might ensue on their destruction. Dr. Gull has pointed out the close resemblance between the pineal gland and the supra-renal bodies, in minute anatomy, and also in liability to calcareous deposit; and the idea seems well to merit attention." (*Loc. cit.*, March 22d, 1856.)

We may add, in concluding our notice of this work, that we are favorably impressed with it. It will prove to be of great service to those who have not access to a large library, where alone can be found what has been written on the diagnosis, pathology, and treatment of the Urinary organs.

As any one who has given attention to it will see, the subject is a vast one. And there yet remains a great deal for future inquiry. Take, for example, Urinary deposits, and what do we know of their import? What is the import of oxalate of lime? of cystine? or, indeed, of uric acid? When these deposits are found, we, of course, have our theories in regard to their origin, but what do they amount to?

A Practical Treatise, on the causes, symptoms, and treatment of Spermatorrhœ, by M. LALLEMAND. Translated from the French, and edited by HENRY J. McDOUGALL. Third American edition: To which is added a work on the Vesicula Seminales, and their associated organs, by MARRIS WILSON.

The work of Lallemand has now been before the American profession so long that it is not necessary for us to call particular attention to its merits. Suffice it to say, that though perhaps imperfect, especially in regard to its practical features, it is yet the fullest embodiment of the facts connected with the subject of which it treats, in existence. Until recently, it has been the sole representative of the department to which it relates. We now have the little work of Wilson, of British origin, representing the same department. Blanchard & Lea have placed the American profession under new obligations by thus presenting them, in one volume, with all in British and French Medical literature, which is deemed of sufficient importance to assume a permanent form.

There are few subjects, it has seemed to us, the investigation of which is more perfectly environed with difficulties than this subject of Spermatorrhæ. In most minds, indeed, there is the greatest repugnance to the investigation. There is an unwillingness to concede the existence of the lower than brutish habits that constitute its most prolific source. Besides its imbruted victims are seldom disposed to admit their depravity. Then, again, it is not as easy as might be supposed to determine when involuntary seminal emissions are sulatory, or when the result of disease. Being the result of disease, still many questions arise, in actual cases, as to the seat of disease—as to whether it is in t e testes, vesiculæ seminales, prostate gland, or urethra. Or again, it being seated in one of these structures, is it in a sthenic or an asthenic state. A large number of equally difficult questions arise as to the thereputic relations of the subject. The determination of all these questions is, in the nature of things, exceedingly difficult. Autopsical examination is rarely afforded, and would probably throw but little light upon the subject. Then, as to practical results, we are seldom applied to, till the patient is impelled to do so by conscious degradation, growing out of real or supposed loss of virile power; and even then he frequently comes because of the opportunity thus afforded him of indulging his melancholy reflections; and if, perchance he is ardently

desiring relief, so far as the moral man is concerned, to which, after all, we must largely address our means, he is so shattered, enfeebled, or paralysed, as not to admit of our hoping for his efficient co-operation.

To those of our readers who have experienced these embarrassments, we would recommend the book before us. We have not been able to verify the correctness of the practical precepts of Lallemand in regard to the curative effect of cauterization with the nitrate of silver. Possibly we have failed in our adaptation of the practice to individual cases, or for the want of very large experience and corresponding skill in making the application. We hope this is the secret of our trifling success. But we are compelled to say that, we think both Lallemand and Wilson have very greatly overestimated its curative power, as well as the proportion of cases in which it may be used without incidental injurious effects. H.

Lectures on the Principles and Practice of Medicine. Delivered at the King's College, London. By THOMAS WATSON, M.D., Fellow of the Royal College of Physicians: Late Physician to the Middlesex Hospital, and formerly fellow of St. John's College, Cambridge. A new American, from the last revised and enlarged English edition—With additions by D. FRANCIS CANDIE, M. D., etc. With one hundred and eighty-five Illustrations on Wood. Philadelphia: Blanchard and Lea. 1858. (For sale by Riley & Co.)

For some time the profession has been looking for a new edition of this work—and, sure enough, here it is. It seems that the "*Lectures*" have undergone a thorough revision at the hands of the Author, and whatever of value recent research has added to our stock of knowledge, in the various departments of medical science, has been carefully incorporated in them. The lectures on fever have been greatly enlarged and improved, and the distinctions insisted upon by pathologists between Typhus and Typhoid, are recognised as being founded in truth.

The extent of the present edition is indicated, not only by an enlargement of the page, but also by an increase of about 200 pages. This edition therefore contains 1,224 pages, put up by Blanchard & Lea in very handsome style.

The additions of the American Editor are inclosed in brackets.

This work has found its way to the libraries of a very large por-

tion of the profession. Dr. Watson seems to possess not only a comprehensive mind, but also powers of analysis that have enabled him to glean from medical literature whatever appeared to be of practical value to the student or physician. This, united with his own experience and a very felicitous manner of expression, has given his Lectures an uncommon degree of popularity. Now, while we cheerfully bear our testimony to the value of the work, we by no means wish to disparage the labors of others in the same line. We have had several works emanating from the American press, saying nothing about others of foreign origin, that are decidedly meritorious—of greater value, perhaps, on the diseases, and phases of disease peculiar to our own country, than the work of Watson; for, in order to describe a disease well, and give proper precepts of cure, it is simply necessary that the author should have lived where it prevails. No one can write sensibly on the Yellow fever, or Congestive Intermittents, without having not only witnessed them, but tried his hand upon them in practice. We think less, therefore, of Watson's work on our autumnal fevers than we do of indigenous publications on the same subject. The many elaborate monographs written by our own countrymen should take precedence when authorities are consulted for information. Of the febrile diseases of our continent—Drake, Eberle, Wood, La Roche, Fenner, Cartwright, have painted likenesses, not from hearsay, but with the subject before them.

Dr. Watson, we observe, has changed his views in regard to the identity of *Typhus* and *Typhoid* fevers. The distinctions insisted upon by pathologists between typhus and typhoid, are now recognized by him as being founded in truth. He remarks: "In the affinity of these diseases is still implied the similarity of the two disorders. But Dr. Jenner has shown, by evidence which quite satisfies my mind, that they differ notably and constantly in their symptoms and cause, in their duration, in their comparative fatality, in the superficial workings which respectively belong to them, and which warrant our classing them among the exanthemata, in the internal organic changes with which they are severally attended, and (in what is the most important, the most conclusive, and the most difficult to determine of all) in their exciting causes."

Dr. Watson began his labors as a writer, with the impression that no definite line of distinction could be drawn between the different fevers met with in England. He believed that different epidemics presented very striking features of diversity, and even of contrast—so as to

suggest the frequent suspicion that the maladies composing them might be specifically distinct. Still, taking into account their strong general resemblance, finding that these like, yet varying forms, were often more or less intermixed—noticing also that other distempers fluctuated in type, that within the last twenty years, all acute disorders had assumed an altered and a more asthenic character, he conceived, and he taught that the differences in aspect and phenomena of continued fever depended more upon what is called the "*epidemic constitution*," that is, upon an acquired disposition of the human body, produced by some general influence, and therefore affecting the entire community, than upon any essential difference in the nature of the disease itself, or in the virus from which it sprang.

These views, suggested in the former edition of his book, have been superseded by the lights from pathological anatomy, marks upon the surface, etc. This question, of no great practical importance, has been before the profession for some time, and may still be regarded as *sub judice*. The notion that Typhoid fever should be classed with eruptive disorders, as suggested by quite a number of pathologists, is founded on the circumstance, mostly, that the former disease, when complete in its phenomena, is characterized with *circular spots of a bright rose color*. These spots are also invoked for the purpose of making up a distinction between Typhus and Typhoid. Quite a number of writers, from Louis, with whom the suggestion originated, to Watson, insist in very persistent terms that the spots are peculiar to the disease. As a consequence, the attention of the profession has been given to the subject, and after years of observation, there is still a want of unanimity of opinion.

Dr. Stewart, of the Glasgow Fever Hospital, has bestowed quite an amount of attention to the question. He remarks, that the *eruption* instead of consisting of successive crops of the spots, presents the two periods, longer or shorter, of increase and decline, and that in the more severe cases it may exhibit, during the period of increase, four different states, being *florid*, *red*, *livid*, and *petechial*. When the line of the eruption is florid, it disappears readily under pressure; when dark, it still disappears, but more slowly; when livid, or semi-petecchial, it is only partially effaced; and when petechial, it is not in the least affected by pressure. Dr. Drake, some years ago, made a tour for observation to our northern chain of Lakes, and while at *Gros Isle*, he had an opportunity of examining, among the emigrants that had just a short time previously arrived, quite a number of cases

of *ship*, or Typhus fever. From his observations and the testimony of the resident physicians of the different hospitals, he felt himself warranted in the following remarks:—

"The skin shows various kinds of maculæ. In a few cases, genuine *rose*-colored spots show themselves, but very soon assume a darker color. In the majority, the spots are purple from their first appearance, and of every size, from ordinary petechia up to diffused ecchymosis, often bearing a close resemblance to post-mortem hyperemas. In some cases the spots are like whelks, and the seat of a sensation which leads the patient to scratch them, whereupon ulcers follow, which occasionally assume a sloughing character." The Chairman of the Committee on Practical Medicine of the American Medical Association, states that during the prevalence of Typhus in the New York Hospital in the month of June, 1840, and at various times subsequent to that period, the eruption, (*rose*-colored spots) regarded as peculiar to typhoid, was frequently present in typhus, of the original nature of which there was not the least doubt, all of them having originated from the same source, namely, the fever poison generated in crowded immigrant ships.

Such is the testimony of Drs. Drake, Stewart, and the Chairman of the Committee of the American Medical Association, in regard to the question before us.

After witnessing a number of epidemics of what is usually called Typhoid fever, we have become impressed with the belief that these rose-colored spots import very little in the way of diagnosis—and still less favorably do we regard the fancy of those who, because of the presence of these spots, regard Typhoid fever as an *eruptive* disease.

Has any light been thrown on the diagnosis by *morbid anatomy?* Nothing is better established than that we may have both typhus and typhoid without any appreciable structural changes. Either disease, as far as human knowledge extends, is often purely idiopathic—dependent upon no organic alteration whatever. In the language of one of the ancient authors, either may "have its seat everywhere, or no where." While then both diseases may be unattended with structural changes, it is equally true that both may be accompanied with various kinds of alterations, the bowels, without any doubt, being their most frequent seat. It may also be stated, that such conditions are much more common in what is now called *typhoid* than in what was formerly, and what is now, called typhus. The lesions of the *solitary* and *agminate* glands, however, which is

so often present in protracted cases in the former, are common to the latter when protracted, and occasionally present in other disorders.

Why should the *solitary* glands, and the glandulæ agminatæ, be more frequently affected in typhoid than in typhus? Is it not, however, true that continued fever from any cause is, when much protracted, liable to be complicated with ulceration of these glands.

The office of these glands is unknown. They are supposed (Carpenter) to be concerned in the elimination of effete matter from the blood, discharging it into the alimentary canal; and it is also supposed (Williams) that when the blood becomes poisoned, as in typhoid fever, it poisons these glands. If such notions be regarded as plausible, why may not the specific poison of other diseases operate in the same way?

The alterations of these glands are supposed to account for the diarrhœa of typhoid fever. Without any doubt, when present, they may give rise to more or less disturbance of the bowels. Their relation, however, to diarrhœa is not that of cause. Diarrhœa, there is every reason to believe, often exists without them, for we often have the complaint ushered in with diarrhœa; then again, very grave changes of structure may take place attended with but little, if any, discharge from the bowels

Nor do, in our judgment, disease or ulceration of the solitary and agminate glands account for the hemorrhage from the bowels. Hemorrhages were formerly supposed, when from a mucous, serous, or cutaneous surface, to be due to a kind of *exhalation*. When from a mucous surface, it was supposed that the blood globules proceeded from mucous ducts, giving exit to serum, etc. The microscope has corrected our knowledge on this subject. The doctrine of a mere exhalation of the blood is untenable—that hemorrhage from a surface without rupture of blood vessels is impossible. The microscope, when applied to the tissue from which a hemorrhage proceeds, reveals a multitude of *distended and broken capillaries*. Now, what is the condition of the organism in typhoid fever when protracted? The soft tissues all lose their firmness—a want of tenacity is almost every where present—cohesion is lost—rupture of the capillaries is the consequence, and hence, hemorrhage. The hemorrhage then of typhoid fever is not, as suggested by the author before us, the result of ulceration of the *solitary* and agminate glands, but of an impairment of the forces of cohesion. Hemorrhages are, perhaps, more common in typhoid than typhus, because, under the

present "epidemic constitution" the duration of the former is greater than the latter—or, in other words, typhoid, as it occurs now, is more protracted than it was half a century ago.

In concluding our notice of the points relied upon by the author for making a distinction between typhus and typhoid, we may state that there is nothing new about them. They have been urged repeatedly in systematic treatises, monographs, etc, but to a large proportion of those who have had experience and good powers of observation, they have proved unsatisfactory—and, as a consequence, the question of identity may be regarded as being still open.

One thing is very certain, the importance of the question, practically, amounts to but very little. Both diseases are regarded as the result of a poison introduced into the system, the effects of which, in the general, are very much alike. The treatment, applicable to the one or the other, is not founded at all upon any hypothesis with respect to the nature of the poison, for this would be a battle in the dark, but is confined to the mere attempt to guard vital parts while the disease runs its course. Interference, with the view of breaking up the course of the disease, is now pretty generally regarded as improper, as likely not only to do no good, but mischief.

Treatment.—On the treatment, Dr. Watson remarks: "These remedies—cold to the shaven head—the local abstraction of blood wherever there happens to arise unequivocal evidence of local inflammation—an active purge at first and mild aperients afterwards, if the bowels are confined or sluggish—moderate astringents, if there be much or urgent diarrhœa, a few grains of Dover's powder, or of the extract of catechu; opium in a more efficient dose when the nervous symptoms are prominent, particularly sleepless delirium and restlessness; in certain cases, small and repeated doses of mercury; and in certain cases, *early* support by animal broths, and even by wine—these remedies, adapted to the particular circumstances of individual patients, form the staple of the treatment of continued fever according to my judgment and experience."

This treatment, it will be noticed, is exceedingly empyrical—the palliation of symptoms as they arise. And yet, who is there that can suggest a better one?

While it must be conceded that the plan suggested by Dr. Watson for the treatment of typhoid fever is, in the present state of knowledge, the most available, no one can fail to recognise its weakness, and how imperfect and unsatisfactory must be the results. No

treatment for *typhoid* fever can approach rationality without being founded upon some correct view of the changes made upon the organism by the disease. The departures from the physiological condition of the solids and fluids must be appreciated. What is the nature of the poison? How does it affect the simple chemical elements entering into the composition of the body? How the *immediate* principles of which the tissues are composed? How the simple histological elements? How the functions of circulation, nutrition, secretion, innervation, respiration, etc.? When such questions are answered, we may begin to hope for an approach to a rational method of treatment.

A matter not always properly appreciated, is the circumstance that no two epidemics of the same disease are alike in mortality. Typhoid fever occasionally prevails, attended with but little mortality. The cases may seem to be grave, yet so decidedly is the tendency to spontaneous recovery that but few deaths occur. At other times, the tendencies are very different—one half of the whole number seized with the complaint, die. What now makes this difference? The superficial and self sufficient observer would attribute it to the treatment. But this will not explain it, for it has often happened in the same individual's practice, where the treatment of both epidemics was in general the same. The explanation will be most likely found in the presence of some other disease, or predisposition to disease, operating concurrently with the epidemic.

When cholera was in the country we often had more or less of it complicating other disorders. It was not then uncommon to have some of its graver elements in connection with typhoid fever; and when such was the case, the mortality was generally very high. In this way we account for the difference in mortality of epidemics.

Yellow Fever.—The article on Yellow Fever is written by the American editor, Dr. Condie,—and when we take into consideration the fact, that Dr. C. nor no one else, not a resident of a locality where the disease is endemic, must necessarily possess very feeble powers of description, the digest he has given is very creditable.

We have no space for a further notice of this work. The author of a work on Practical Medicine assumes quite a responsibility—the direction of a profession in the cure of the diseases to which "flesh is heir." Great good, or great evil, or both, may be the result. Respect for authority is a virtue—but it should not be forgotten, that those who write books on the subject before us, can never fur-

nish the programme for the treatment of a single case. Of the exact character of the case, and of the remedies applicable to it, the physician who has charge of it must be his own judge. But while this is the case, the young men will find in the work before us the counsels of wisdom, and the old men the words of comfort. Few men have succeeded so well as Dr. Watson in throwing together science and common sense in the treatment of disease.

PART FOURTH.

EDITORIAL AND MISCELLANEOUS.

Lecture of O. S. Fowler, of N. Y., the Phrenologist.

This gentleman has just closed a course of Lectures in our city on his speciality, *Phrenology*. We attended his first lecture by invitation, and it might not be out of place to say how we were impressed. We will say a few words on the *physique* of the lecturer, his *style* of speaking, *amount* of learning exhibited, character of *matter*, &c.

Mr. F. is of medium height, has a light frame, sharp features, a head with a very long antero-posterior and very short transverse diameter.

Mr. Fowler is the counterpart of a good speaker. His voice is small, at times aspirate, and is a very fine sample of monotone. Emphasis was generally misplaced; and cadence he seems never to have heard of, rushing up to the end of his sentences without the least variation of tone. From what we heard, we should not think Mr. F. a man of learning in his department. The references he made to physiology showed how little he knows of the science of which his speciality is alleged to be a part. He stated that, a man who had the art of breathing could cure himself of almost any disease, fever and ague included!

The *matter* of Mr. F.'s lecture was about what we have had in the books on the subject for years. He alluded to the labors of Gall and Spurzheim, but told of no experiments or observations of his own, to show that the brain has the plurality of function contended for by phrenologists, and that the location of each faculty can be pointed out on the exterior of the cranium. He considered the brain as the organ of thought, and its strength dependent upon the body—a strong brain in a strong body—a weak brain in a weak

body. He said the phrenologists discovered this connection. How is this? *Mens sana in corpore sano*, is as old as classical literature. But is this naked dogma true? Has the "Benecia Boy" more intellect than had Pope, who had such a poor physique that he was obliged to lie upon the sofa while composing the "*Essay on Man?*" or more than Locke, who was a miniature man, physically? If gigantic intellect and broad views are always necessarily connected with large bones, muscles, &c., how are we to account for the able productions that in all ages of the world have eminated from small men? Some body has suggested that there are big-headed races, big-headed families, big-headed individuals—meaning thereby, it may be supposed, that there are nations, families, and individuals that have a predominance in the development of the nervous system. The dogma, therefore, needs qualification. It should be stated on this wise: *Cœteris peribus*, the individual or the nation having the largest brain will have the largest capacity.

In regard to the plurality of organs or faculties — dissection teaches that the brain and spinal marrow are composed of two kinds of matter, *gray* vesicular, *white* fibrous. In the former the forces *originate*, whether connected with motion, sensation, or intellection; the latter is continuous with the nerves and serves the purpose, like the nerves, of conduction. In the spine, the gray matter is capable only of originating motor phenomena, in the sensorium at the base of the brain, sensory phenomena, and in the convolutions, intellectual phenomena. These convolutions surround the organ. They exist at the base of the skull and in the fissures as well as upon its upper lateral and posterior parts. If viewed with the naked eye, or with the microscope, or subjected to the crucible, they are alike every where. Why, then, not map out the base and the portions within the fissures and attribute to them certain faculties? Why suppose that those portions corresponding to the more exposed parts of the frontal' parietal, and occipital bones are alone endowed as organs. In the estimation of phrenologists, each one of the faculties depends upon a particular spot on the circumference of the brain, and in these spots the forces of the faculty, whether relating to the moral, animal, or intellectual nature, are elaborated. Now, how will this hold good with reference to other organs, the office of which is to elaborate or secrete different things. The kidneys secrete quite a number of substances. Is a certain part of the organ set apart for the secretion of urea, another for urie acid, another for

chloride of sodium, another for phosphate of soda, &c? What is the difference between a supposition of this character, and one that divides up the brain into individual sections? The cerebrao spinal axis appears to be peculiarly endowed in different parts of it. The lower portion of it, the spinal marrow, has the kind of gray vesicular mater in it capable, merely, of originating *motion;* the base of the brain the kind that sustains *sensation;* while the gray matter in the convolutions upon the circumference of the cerebrum and cerebellum serves as the source of thought, emotion, passion, &c. Thus far there is *specialization* of function in the brain; and here the matter is susceptible of proof of a high order. But there is nothing, in the way of evidence, stronger than analogical reasoning that supports specialization of function any further.

Sims' Operation in connection with Pregnancy.—We recently performed the operation for vesico-vaginal fistula under peculiar circumstances.

A lady and her husband had visited us in reference to an operation, and were to have been in the city, for that purpose, a couple of months subsequently. In the mean time, however, we received a note informing us that she had ceased to menstruate under circumstances giving rise to the apprehension of pregnancy. We advised delay to give opportunity for determining that matter; in the mean time, as the rent was large, and we had witnessed the most disastrous consequences from the supervention of labor at term, under similar circumstances, we were led seriously to consider whether it was not our duty to effect an abortion.

The necessity for direct procedure towards this end, was however, obviated, as the result of more mature reflection. We were led to hope that Sims' operation could be performed without its inducing an abortion, and that being successful, the cicatrix might reasonably be expected to attain so much firmness and strength during the balance of the term, as to make this portion of the walls as strong as any other; and that, the operation resulting in an abortion could only for the time, defeat the attempt at a cure of the fistula.

The pregnancy in the mean time, however, had reached the end of the third month. At this stage we proceeded to the operation

for the cure of the fistula, introducing seven silver sutures. Every incident of the case was very gratifying till near the end of the third day. At this juncture very active labor pains supervened, and within about two hours the fœtus and secundines were expelled.

Examining our sutures the following day, we found the central ones torn out and the other parts of the pared margins separated more or less, so that we at once removed all the stitches and left the case for further operative procedures as soon as we might regard them admissable. H.

CACHEMIA.—The most striking specimen of this pathological lesion which our exchanges have contained in a long time, is in the December number of the Oglethorpe Medical Journal, published at Savanah, Georgia. Prof. Steele, one of the editors, was subjected to a newspaper attack from a competitor. It brought out a reply from him, which, with the brief report of a case of fever, fills 12 pages of his journal.

We have not the slightest disposition to enter into the pending controversy, in regard to the case, or to apologize for the attack, or even to maintain that being groundless and unrepented of by its author, it ought not to exclude him from the fellowship of the honorable of the profession. But as the article closes with a challenge for the criticism of the profession, we embrace the opportunity to express our regret at its spirit. Possibly, as Prof. S. characterizes him, his competitor is "contemptible," "dishonorable," "low and malicious," "one of his satanic majesty's pimps," "a public mendicant," &c, &c., &c. Let all this be true, however, to whatever extent, in the given case, it is still not the less unfortunate, that one whose position is so elevated as that of Dr. Steele, did not discard this public exhibition of unsavory epithets, and either treat this attack with silent contempt, or meet it cooly in the spirit of candor and fairness, and whatever of severity these might justify. Such a course, seems to us, to have been demanded; not only to silence his assailant, but as commending itself as worthy of the imitation of the large number of juniors, who are supposed to look to him as an exemplar. H.

Prof. Loving's Introductory Address at the Opening of the Session of Starling Medical College.

This address, published by the Class, has been laid on our table. It is upon the *subject* of *Chloroform.*

We have no space for an analysis. But we may say that it commences with the history of anæsthetic agents, after which a very good summary of what is known of those most in use, is given. On the historical part of the subject the address is *multum in parvo;* and as it regards the use, abuse, and relative merits of the different articles before the profession, the views presented are sound and well expressed.

No article on its first introduction to public attention has created more sensation than *Chloroform.* Its range of application, important character of the indications sought to be fulfilled, and the contingencies connected with its use, have combined to enlist a great amount of interest from all classes of community.

Notice to Physicians.—We occasionally send specimen numbers of the Journal to reputable physicians who are not subscribers. Where more than one number is retained, we shall take the liberty to continue to send, and forward bills as to regular subscribers.

H.

Proceedings of the Ohio State Medical Society.—The printed proceedings of the last meeting of the Ohio State Medical Society are ready for distribution. Some of the longer papers not having been forwarded to the publishing committee, it is rather a slender document. H.

Minutes of the Union Medical and Surgical Society of Alliance.

Special meeting convened at or near the hour appointed.

President, Dr. A. Brook in the Chair.

Secretary's report of previous meeting, read and accepted.

On motion, The order of business was suspended for the transaction of some of a miscellaneous character.

Dr. A. Borton of Plymouth, Ind., presented his credentials from the censors, recommending him as being qualified for membership; Dr. B. was unanimously elected as a member and received his certificate.

On motion, L. Collins, M.D., and W. M. Prentice, M.D., both of Ravenna, were elected members of the Society.

Dr. Alkorn was excused, on application, from delivering his address, on plea of ill health and want of time for preparation. Essayists not present. Appointments continued.

Dr. Thomas presented Dr. A. Belding's claim for an excuse, which was accepted and the Dr.'s appointment continued for the next meeting.

Dr. W. M. Prentice introduced the subject of typhoid fever for the consideration of the profession then present.

Dr. A. Brooke, of Marlboro, and Dr. L. Collins of Ravenna, were called upon to give their opinion as the oldest members present. Some interesting facts were elicited in regard to the epidemics occuring at different periods of time. Dr. Collins' dating as far back as 1826. Dr. Brook's experience proved that different sections of en required different methods of treatment. In the southern districts of this State opium had been *his* sheet anchor; in this section mercurials and quinine. Dr. Collins concurring in the application of this treatment to the epidemics spoken of.

Interesting remarks by other physicians present.

Query by Dr. Alkorn: Is it contagious? elicited some discussion but no general decision.

Dr. R. S. Thomas, of Alliance, reported a case of poisoning by strychnine occurring a few days previous, in which after violent tetanic spasms (the effect of V grain dose of strychnine, swallowed two hours before being called) he succeeded in relieving the patient by administration of large doses of sulphate of zinc, after free emesis giving tr. opii. Query—Will he experience more tetanic spasms as he has still—(after a lapse of five days) pain in his shoulders and spinal muscles? Opinions given in the negative.

Dr. R. S. Thomas, then presented the following resolutions which were adopted:

Resolved, That the reports of cases, essays, and all other papers, read before this Society, be left in the hands of the Secretary, as the property of the Association, with the consent of the authors.

Whereas. Publishers of Medical Journals request the profession to report to them for publication, matter of interest or novelty to the

medical world; and, whereas, *this Society may*, have such matter, therefore,

Resolved, That a committee of three be appointed to select from the addresses, essays, cases, and other papers presented to this Society, such matters as in their judgment, would be of general professional interest, or instructive, and present to Medical Journals for publication.

Resolved, That this committee serve during the remainder of the present year, and that hereafter, such standing committee be appointed at each annual meeting.

The meeting then appointed Dr. W. M. Prentice, Dr. R. S. Thomas and Dr. A. Brook, said commitee.

Dr. Alkorn was appointed to deliver his address at next meeting.

On motion, adjourned.

DR. A. BROOKE, *President.*

ELIZAH L. S. THOMAS, M.D., *Secretary.*

Union Medical Society of Alliance, Ohio.

We have received a copy of the Constitution and By-Laws of this Society, organized June 26, 1858. The following are the officers for 1858–9.

President, Dr. A. Brooke; Vice President, Dr. K. G. Thomas; Secretary, Dr. Eliza L. S. Thomas; Treasurer, Dr. J. Armstrong; Censors, Drs. A. Belding, S. L. Brenton, J. H. Day.

We shall expect to hear of the success of this Society, and shall be pleased to have some of its meritorious papers for insertion in the Journal.

If every county in our State had a Medical Society well sustained, we might with confidence look for increased learning in the profession, and a larger compass of respectability and usefulness. Association stimulates industry, harmonious action, and promotes good feeling.

SEPOMETER.—Among the many things which have troubled the minds of ordinary thinkers, has been the assertion of chemists, that the air had in all places the same composition. We cannot, therefore, be sufficiently thankful to Dr. R. A. Smith, of Manchester, for

his discovery of an instrument by means of which we can ascertain the *causes* of the different degrees of purity of air. As by means of this instrument the actual amount of putrescible matter in the air can be measured, Dr. Smith has given to it the name of *Sepometer.* The salt he uses, as a measurer of impurity, is almost the best oxydizing agent with which chemists are familiar; it is the permanganate of soda. The process consists simply in ascertaining how much of the permanganate is decomposed by a given amount of air. The indications are very beautiful, and exhibit the greatest difference between the air of towns, country, and sea. The use of blood by Dr. Smith is also novel. By means of the smallest quantity we can almost instantly ascertain the difference between town and sea air, by shaking it with a small portion of blood in a tube. We shall be most anxious to hear of experiments performed in the wards of our hospitals by the aid of the Sepometer, and with the breath of patients, as we believe that much valuable information will be thereby obtained.—*Med. Times and Gaz.*, July 24, 1858.

Preliminary Literary Education again required from Medical Students in France.—Our readers may recollect that in 1852 an imperial decree removed the obligation, formerly imposed on students, to produce the degree of Bachelor of Letters (tantamount to our B. A.) before commencing their medical studies. Proficiency in the sciences allied to medicine was alone required. It has, however, been found that the absence of a literary education had a very unfavorable effect upon the young men entering upon their medical studies. The Superior Council of Education was consulted on the subject, and the members were almost unanimous in the opinion that the former state of things should be re-established. The Minister of Public Instrcution, M. Rouland, also approved of the change; and upon his report to the Emperor, the decree has just been issued requiring every student to be possessed of the degree of B. A. before registering at the faculty. The first year is devoted to the study of the allied sciences as far as they bear upon medicine; and a modified degree of Bachelor of Science is, after examination, conferred upon the student who has completed his first year. The *bona fide* medical studies then begin, the young men are examined at the end of each session, and the last examination takes place when the four years are completed.—*Lancet*, Oct. 16, 1858.

IMPORTANT TO DRUGGISTS AND OTHERS.—George W. Quinby vs. F. Eckstein, Jr. Judge Spencer delivered a lengthened charge to the Jury. Our space will admit only of an abstract:

The plaintiff sets forth that defendant is a druggist in the city Cincinnati, whose business it is to put up accurately prescriptions handed to him from time to time; that he held himself out to the world as skillful in the performance of that branch of business; that plaintiff, in the month of November, 1855, placed in the hands of an agent or clerk of the defendant a prescription written by Dr. Mighels, for the extract of dandelion, instead of which said agent put up an extract of bella donna; and that in consequence of this carelessness of the defendant, through the medium of his agent, the plaintiff suffered greatly in his person—became, in a word, poisoned—lost the use of his limbs and reason for a considerable space of time, was for many months deprived of the power of transacting his business, and put to considerable expense in procuring medical attendance—for all of which he claims damages in the sum of $10,000. The defendant admits that his profession is that of a druggist, and that as such he puts up prescriptions, but in all other respects denies the averments of the petition.

It should be premised here, that the foundation of the action is the negligence of the defendant. The business of a druggist was one that required him to exercise extraordinary care and prudence, so far at least, as the public are concerned; and the reason for this is that in proportion as accidents may be fatal, or the community may be injured, more or less, by neglect or omissions, persons should be careful in avoiding those accidents. But all this is founded on the idea of negligence, for the law does not require that an apothecary shall insure that at all hazards a prescription is accurately put up.

It was claimed, on the part of plaintiff, that irrespective entirely of any care exercised by defendant, he was bound to put up the article required, and that if he failed to do so, the other party would be entitled to recover for any damage arising to himself from such a failure; and the case was put by counsel that, if a merchant was requested to put up a certain article of commerce, and put up anything else, he was bound to respond in damages. This may be true, but it does not follow he is responsible for all the consequences. No man would be safe if he was required at all hazards to guard against accidents. If a merchant dealing in flour, should sell an

article not manufactured by himself, that looked fair, yet happened to be mixed with poison, he would not be responsible for any accident growing out of the sale, where the transaction was one in which he was not at all negligent. The commodity not being as it was represented in the first instance, he would be bound to restore the price paid for it, but where he had exercised prudence and care in the selection of the article, he would not be responsible for accidental consequences.

The same rule applies to a physician or apothecary; he is responsible only on the ground of negligence. It might be illustrated in this way: If this medicine had been in the first instance properly put up, and the plaintiff did not immediately take it with him, but left the store for a short time, (as was the case,) and then returned and took it away—some other article having been substituted in the meantime, by the intervention of an agent over whom the defendant had no control—or that the defendant not being the manufacturer of the article, obtained it as genuine, when in fact it turned out not to be so, but different from that which he supposed it was—in either of these cases he would not be responsible further than for the price paid for the medicine.

The Court here reviewed concisely the testimony applicable to these propositions.

The first inquiry which presented itself was whether the article that was put up was that which the prescription called for. If it was, there was an end of the action. Here the burden of proof rests on the plaintiff. He claims it was belladonna. Were the Jury satisfied it was? Had the plaintiff sufficiently accounted for the possession of the gallipot throughout the whole time? As to the identity of the box itself, the defendant claims there is a link in the chain wanting—that a change in the article may have taken place, and that a boy being sent into town with the medicine, furnishes a theory by which that change may have been effected. In questions of this kind it was not required of the Jury to be satisfied beyond all doubt, but to exercise their judgment as men of common sense, and say where does the weight of evidence lead to.

The next question was whether the contents are belladonna. The plaintiff alleged it was analyzed in the city of Boston. This was an appropriate means of determining its nature; but so far as they undertook to rely upon it, the Jury should look into the evidence, and say whether the party had competent skill to perform the ser-

vice, and applied the proper means to arrive at the results. If this is not satisfactory, they should then examine the other evidence referring to the ordinary means of ascertaining the nature and character of the article.

It was incumbent on the plaintiff, not only to show that he received a different article from that complained of, but that it was belladonna, and that he received an injury from it, and traces the ills of which he complains directly to its influence. The testimony of experts must be availed of. An isolated experiment amounts to but little. It is by a series of experiments that men become familiar with the effects of poison, and skillful in their use.

The defendant claims that all of the symptoms manifested by Mr. Quinby would have resulted from an attack of apoplexy, or a peculiar action of the nervous system. If the plaintiff had satisfied the minds of the Jury that all the symptoms were such as would be manifested by the exhibition of belladonna, and that the plaintiff took that article, it was then fair and proper to infer that the injury resulted from its use; and if the defendant would resist this inference he must show that for a time prior and subsequently the plaintiff was laboring under a disease of that description; and that the seeds of it, so to speak, were in his system. If they supposed from the testimony that the result might as well be attributed to the one as to the other, as the plaintiff must trace it clearly to belladonna, his claim must in that case fail.

The defendant presents another theory—that the plaintiff was hypocondriac, and that all the subsequent manifestations after the first prostration were the effect of imagination. It was in testimony that before this time the plaintiff was subject to giddiness, affections of the head, and loss of memory. But the Court was not aware of any evidence showing how hypocondria would affect the individual. It would be the duty of defendant to introduce such evidence.

If they were satisfied that the article put up had been identified, that it was belladonna, that it was poisonous and produced the effect ascribed to it, then the plaintiff would be entitled to such compensation as he had pecuniarily suffered, if there was negligence on the part of defendant, unless the plaintiff himself was guilty of some neglect on his part.

In regard to negligence on the part of defendant, in a case of this kind where a prescription calls for dandelion, and belladonna is put up, this makes out prima facie a case of negligence. The druggist

is bound to put up the article called for, and if by mistake he puts up another, he is responsible for it prima facie ; and it is no excuse that he used all the diligence he could, unless he can lay the fault to some other person, over whom he had no control. If he relies on the act of a third party he is bound to present the proof; as in the absence of testimony going to exonorate him, the law presumes he is negligent.

As to any negligence on the part of the plaintiff himself in the taking of the article before he could be charged with it, a knowledge by him of the operation of the drug should be shown ; and it would be further considered whether he did not show ordinary prudence in the means he did take to avoid accident. If he was advised of the nature of the article, and was careless in taking it, then he could not obtain a verdict ; but if his suspicions were not aroused, and he took such means as men ordinarily take to avoid accident, there was then no fault on his part.

If, under all the circumstances, they considered the defendant guilty of negligence, and that in consequence the plaintiff was damaged in the mode charged in the petition, they then arrived at the important question of damages. In the first place, the plaintiff would be entitled to recover the damages arising from the direct consequences of the act, the physician's charges, &c., and in addition to this, it appeared he was compelled to travel, and so far as this was a necessary mode of restoring his health, it was a proper item of charge, though not to the whole extent of supporting his family. He also claims for his loss of time, being then engaged as an editor, and a public lecturer and preacher. To determine the value of such services they were to look at the ability of the man himself—his position, his popularity—a great many considerations entered into the case, which makes one editor's services more valuable than those of another. If, however, during a portion of the time the plaintiff was capable of performing other services, and was not wholly disabled from exerting himself in other business in a modified degree, it was not right to charge the whole loss of time against the defendant. If the defendant, however, was guilty of gross negligence in putting up the medicine, the jury need not be so precise in fixing the measure of damages ; but if the accident did not involve such charge, they should be as precise as possible in fixing

the amount. All considerations of sympathy in either direction should be laid aside.

The Jury then retired, and in one hour returned with a verdict for plaintiff—damages two thousand five hundred dollars.—*Cin. Commercial.*

Peculiar Effects of the Fumes of Phosphorus.—It has been ascertained by M. Moignot, an ecclesiastic well known in the scientific world, that the women exployed in the manufacture of lucifer matches are very liable to miscarry; and so fully aware have the workwomen become of this peculiarity of phosphorus that advantage has been taken of it to procure abortion. Nor is this all, for the same observer has ascertained that the emanations of phosphorus are excitants of the sexual organs in men. It has been noticed that this effect has been produced after the individuals have been exposed to the fumes for a certain time. It is incumbent upon medical men to investigate the matter, so that reliable data may be obtained.—*Lancet*, Oct. 16, 1858.

Statistics of the Prevalence of Rickets at Dresden.—Dr. Kuttner states that, rickets is extremely common in that city. Out of 9,000 patients admitted into the Childrens' Hospital for the last twenty years, 1,654 were rickety or had been so, the latter presenting unmistakable traces of the disease. Thus it would appear that the proportion of rickety children was 20 per cent.; and by leaving out from the total number of 9,000 such children who were less than one year old, and could not as yet be affected with any symptoms of rickets, the proportion rises to 25 per cent. Dr. Kuttner thinks that the cause of this state of things is the wretched condition of the laboring classes of Dresden, as that city is not worse off, in a hygienic point of view, than other capitals. It is neither remarkable that out of these 1,654 rickety children, 198 belonged to journeymen shoemakers, and 162 to journeymen tailors, being 25 per cent. of the whole number. Twins and children prematurely born were rather numerous. As to age, it was found that

the largest number were from two to three years old. The influence of the mother's milk does not seem to have been well marked; for 387 had not had the breast, or had been suckled but a very short time; 360 were nursed for the ordinary period; and 455 for a longer time than usual. As vaccination had been accused of inducing rickets and scrofula, it will be interesting to notice that, out of 1,258 rickety children, 759 had not been vaccinated; 491 had undergone the operation, and 35 had had the small pox. The winter months were noticed to bring the largest number of rickety children into hospital. Dr. Kuttner finally considers that rickets may be owing to the early use, with children, of much bread and potatoes.—*Lancet*, Aug. 21, 1858, from *Journal für Kinderkrankheiten*, Nos. 7 and 8, 1858.

Yellow Fever in Southern Cities.—We are gratified in being able to announce that this fatal pestilence is abating its ravages.

New Orleans.—In this city the mortality from yellow fever is steadily diminishing, as will be perceived from the following table:

DEATHS FROM YELLOW FEVER.

15th week, ending October 3,	- - - - -		380
16th " " 10,	- - - - -		390
17th " " 17,	- - - - -		310
18th " " 24,	- - - - -		265

Charleston.—The number of deaths in this city, from yellow fever, was—

For the week ending October 3,	- - - - -		64
" " " 10,	- - - - -		45
" " " 17,	- - - - -		40
" " " 24,	- - - - -		22
" " " 31,	- - - - -		24

The number of deaths from the pestilence, from August 1, to October 9, was 573.

Mobile.—The *Mobile Advertiser*, of the 12th October, represents the mortality from the pestilence as being larger than during any preceding week. The total number of deaths up to that time, from the epidemic, amounted to 931.—*Med. News.*

Homœpathy and Mormonism.—We find by the *Plymouth Journal*, of August 19th, that the Mormons are increasing in the neighborhood, but are complaining, along with the homœpathic quack, that their doctrines are misrepresented and misunderstood—that the book of Mormon and Hahnemann's Orghanon, the *Millenial Star* and the *Homœpathic Review* are not read so extensively as they used to be and should be, and that even when read, it is not with a view to enlightenment. From the controversy which has been going on in the Plymouth newspaper, we learn that a clergyman had been assailing a medical practitioner for his so-termed prejudices against the globulistic quackery, and for his objecting to waste his time in reading the rubbish of Hahnemann, Currie, Black, &c. The latter, in reply, referred to Mormonism, to the spread it had made in this country and in America, to its disciples in many parts of the kingdom, and to their forming a new State (Utah,) as proving it equally to be a verity. He asked the divine whether he had ever read the Mormon Bible, and other works on Mormonism to satisfy himself *truly* and *clearly* as to the truth or falsity of the new system of religion? He offered, if his reverence would peruse these delectable writings, himself to read the works relating to homœopathy, and to try and profit by their perusal; rightly enough maintaining, however, that the one task was no more required than was the other to convince each of the absurdity of the separate delusions. We need scarcely add, that the clergyman thought Mormonism to be an arrant imposture, denounced its converts as either knaves or fools, and did not think it at all necessary to wade through the Mormon Bible in order to be sure whether his convictions were true or false. The medical practitioner thereupon declared that *he* had a like surety for the humbuggery of globulism, and equally declined the delightful privilege of being compelled to bewilder himself with its cabalistic books of *hocus pocus*. The reverend parson seems to have caught a Tartar.—*Lancet*, Sept. 11, 1858.

Artificial Dilatation of the Larynx in Croup.—Much discussion has of late taken place at Paris respecting a bold measure in croup—viz., actual catheterism of the larynx and trachea, followed by caustic injections, proposed and successfully practised by M. Loiseau, of Montmartre, near Paris. This operation is to prevent the necessity of tracheotomy, and has been warmly supported

by M. Trousseau, in a report presented by this physician to the Academy of Medicine. Several successful cases have been quoted, one, however, proved fatal in August last.

The Academy has very recently heard another paper on the "Dilatation of the Larynx in Croup," to render tracheotomy unnecessary. The author is M. Bouchut, an eminent hospital physician of Paris. Trials were first made on the dead body, and a silver, truncated, hollow cone, a little smaller than a common thimble, was passed into the larynx, and was felt to dilate that passage perfectly. A series of instruments were contrived by M. Bouchut for the introduction of the cone, or canula, to which a silk thread is fixed, which hangs out of the mouth. Two children, affected with diphtherite, have been operated upon by the dilator, full details being given by M. Bouchut in a paper presented to the Academy of Medicine. Although the results have not been favorable in one case, it has been proved by these operations that a hollow, truncated cone can, in the paroxysms of suffocation of diphtherite, be introduced into the larynx, and there left for several hours, to the great relief of the child. Respiration, in both cases, became perfectly tranquil after the cone was introduced, the same being subsequently removed with the greatest ease. Further trials will prove whether this method of admitting air is preferable to tracheotomy.—*Lancet*, Oct. 2, 1858.

Application of Sugar when Lime has entered the Eye.—The *Indicateur de Mayence*, in relation to cases of workmen becoming blind by the action of lime which has entered the eye, recommends, as a well approved application in the case of such accidents, a strong solution of sugar, which is to be inserted drop by drop under the eyelids. This application can usually be immediately obtained, and completely prevents the caustic action of the lime.—*Journ. de Chimie Méd.*, Aug. 1858.

Persulphate of Iron as an Hæmostatic.—We abstract from the *American Journal Medical Sciences*, a portion of an article condensed from the *Pacific Medical and Surgical Journal*. Dr. H. H. Toland records three cases in which vessels of considerable magnitude were wounded, in which he employed with entire success the persalt of iron, recommended as a hæmostatic by M. Monsel, surgeon to the Military Hospital at Bordeaux.

"Its action on blood and albumen is powerful, and on blood somewhat peculiar. It produces with the latter a volumnious clot, *absolutely insoluble*, which continues to enlarge, for several hours after its application, and becomes quite hard and firm. The following is the formula by which this salt is expressed : $5\ SO_3$, $2\ FeO_{\frac{3}{2}}$."

"This salt," Dr. Toland states, "if applied to a superficial wound as soon as made, not a drop of blood escapes, and no pain results from the application. It acts by producing instantaneous coagulation of the blood, and will be found invaluable in hemorrhage from the mouth, nose, and throat, when it is impossible to ligate the vessels, and may be equally efficacious in alarming uterine hemorrhages, either active or passive. In solution, it could be readily applied : it is very deliquescent, and dissolves speedily in water."

Should these hæmostatic qualities of the persulphate of iron be confirmed on further trial, it will prove a most invaluable article for surgical purposes, Any of our readers in this city, or convenient to it, wishing to try the persulphate, can procure it at the drug store of Mr. J. Keshan, corner of Sixth and Walnut streets.—*Cin. Lancet and Observer.*

Lallemand's Porte-Caustic Broken in the Urethra.—Dr. A. H. Buchanan related to the Nashville Medical Society (September 1, 1858) the case of a young man who was in the habit of introducing Lallemand's instrument for the purpose of cauterizing the urethra, and had the mishap to break off that portion of the instrument which holds the caustic, into the bladder. At the time the caustic-holder was pretty well filled with nitrate of silver. He, soon after the accident, was seen by Dr. B., who made some efforts with instruments to extract the foreign body, but without success. He

then advised the young man to return home, and after some little time, to retain his urine until his bladder was uncomfortably full, and then get into a bath of warm water, on his hands and knees, and with considerable effort evacuate the bladder. The patient, feeling some anxiety about the matter, set about carrying out the orders immediately on his arrival at home, and to his great relief of mind, succeeded in voiding the caustic-holder. Dr. B. stated that he had suffered no material inconvenience from the presence of the caustic in the bladder, which may have been as much as twenty grains.—*Nashville Monthly Record*, Oct., 1858.

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